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Mortgage Loans on Farm Real Estate in Clark County South Dakota, 1910 - 1930

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Circular 10 April, 1933

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in

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With special reference to Raymond, Garfield and Mt. Pleasant Townships

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Purpose and Method of Study

Purpose of Study.—This circular dealing with conditions in Clark county is part of a larger research project involving also a study of the farm mortgage situation in the counties of Brookings, Hyde, Haakon and Turner. Ever since the post-war deflation began in 1920 the farm credit problem has been more or less acute. This is an inevitable result of falling prices after a period of inflation such as that brought on by the World War. Because the bulk of the farm credit is based on real estate mortgages it has seemed particularly appropriate and timely to try to determine at this time the actual farm mortgage situation in representative areas of South Dakota. The collection of factual information about past and present farm mortgage conditions is a necessary preliminary for any plan of improvement. The immediate purpose of this study is thus to assemble all available and pertinent data respecting the farm mortgage situation in the areas studied. The ultimate purpose of the study is to bring about some improvement in prevailing conditions by the application of the relationships and principles developed. By assembling and analyzing the information as to the source of funds, amount of indebtedness, cost of credit, term of loans, volume of delinquency and of foreclosures, indebtedness per acre, etc., as these have changed during the twenty years from 1910 to 1930, some basis will be laid for recommendations aimed at the betterment of the relationship between borrower and lender and the solution of their mutual problems.

Method of Study and Location of Area.—The choice of a method of study involves a selection of the source or sources of information as well as a decision with respect to how to acquire the data. One might procure the information directly from borrowers and lenders either by personal interviews or by letters. Some of the difficulties attendant upon the use of this procedure are obvious. Many people may have forgotten the details or may prefer not to give any information about their private affairs. Personal interviews would be expensive and time consuming, and the mail questionnaires might bring relatively few replies. For these reasons it was decided to procure the data from the office of the register

The author wishes to acknowledge the receipt of valuable suggestions and criticism from Professor Sherman E. Johnson, under whose supervision this study was made. Acknowledgment is also made of valuable assistance received from abstractors, county officials and others who have helped to make the information available.

of deeds at Clark, the county seat. It was found economical to employ the services of a professional abstractor to list all documents affecting the title to the lands included in the area studied. The records were traced back for a sufficient number of years to assure a complete list of all recorded documents affecting deeds and mortgages in force from 1910 to 1930 inclusive. While this method of procuring the information seemed the most desirable it is not perfect. Much of the essential information often is not recorded. The release of a mortgage may not have been put on record. Frequently the deeds do not specify the correct sale price. Furthermore, the county records give no information as to why a farmer borrowed, what

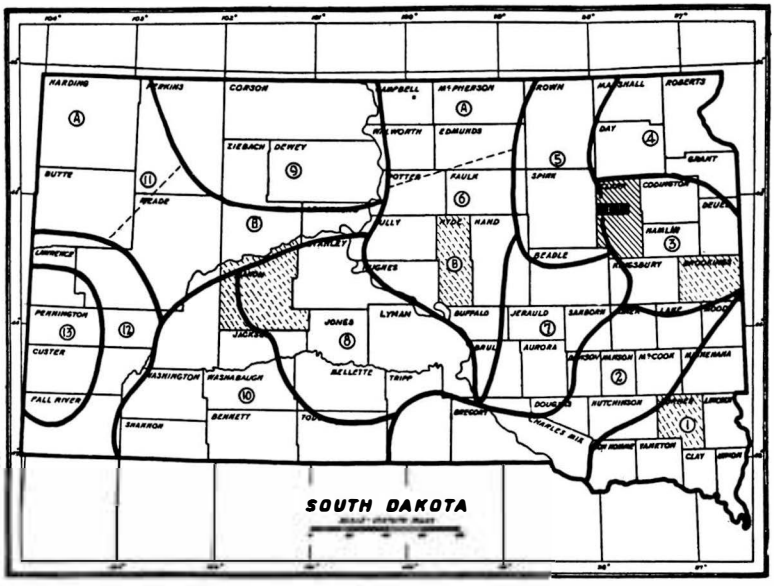

Figure 1.—Map of South Dakota showing, in solid black, the location of the area studied in Clark county, other counties studied, and type of farming areas, as follows:

Area I	**The intensive livestock feeding area.**
Area II	**The moderate livestock feeding area.**
Area III	**The small-grain and livestock area.**
Area IV	**The small-grain, livestock and dairy area.**
Area V	**The intensive spring wheat area.**
Area VI	**The extensive small-grain area.**
Area VII	**The central small-grain area.**
Area VIII	**The central farming-grazing area.**
Area IX	**The northern farming-grazing area.**
Area X	**The sub-marginal agricultural area.**
Area XI	**The northwest grazing area.**
Area XII	**The Black Hills valley area.**
Area XIII	**The Black Hills area.**

he used the money for (if not a renewal of an old loan) or how he acquired the funds for making his payments, etc. In order to reduce the amount of work involved to practicable proportions three representative townships were selected for study. For the same reason, most of the data have been analyzed for only every fifth year from 1910 to 1930.

Townships Selected.—After consulting with county officials and others familiar with the surrounding area, Mt. Pleasant, Garfield and Raymond townships were selected as being representative of the county. The location of these townships in Clark county are shown in Figure 1, a map of South Dakota.[1] The eastern part of Mt. Pleasant township is low land. There is some sandy soil near the south central part of this township. The north-western corner has better soil. Upper Dry Lake extending from Section 30 in the southwest to Sections 2 and 1 in the northeast is partly in cultivated fields and partly hay meadow. Going west through Garfield township one finds more rolling land of higher elevation. The western edge of this township is rather hilly and, together with the eastern edge of Raymond township, slopes westward into the lower level expanse of the James river valley.

Soil, Climate and Crop Yields.—The following information on soils, precipitation, length of growing season and index of crop yields, for counties on which mortgage information has been obtained, are taken from South Dakota Bulletin 238, "Types of Farming in South Dakota." Both Clark and Brookings counties are in the area with an annual precipitation of 20 to 25 inches. Hyde and Haakon counties have only from 15 to 20 inches, but a small area in the northwest part of Haakon county has between 20 and 25 inches of precipitation per year. Turner county has an average annual precipitation of over 25 inches. The growing season is also longer in Turner county, being between 135 and 145 days. In the other counties mentioned the length of the growing season is from 125 to 135 days. As to soil types Haakon county has the Pierre soils and the other counties mentioned as included in this mortgage study have the Glaciated soils. The types of farming also differ. As shown in Figure 1, Turner county is in Area I or the intensive livestock feeding area. Brookings county and most of Clark county are in the small-grain and livestock area (Area III). A small triangle in the west southwestern part of Clark is in Area V, the intensive spring wheat area. Hyde county is in Area VI B, the extensive small-grain area where more corn and livestock is raised than farther north in Area VI A. Haakon county is in the central farming-grazing area, designated as Area VIII, in Bulletin 238. The same bulletin furnishes an index of crop yields, according to which the whole state as an average is rated as 100. On this scale Turner county has a crop yield index of 111.68, Brookings county 102.81, Hyde county 92.76, Clark county 91.23 and Haakon county 86.25. The foregoing data quoted from Bulletin 238 may be of interest in connection with a study of the mortgage situation.

1. The legal description is respectively Ranges 57, 58 and 59 West, in Township 117 North.

Total Indebtedness and Changes in Amount

Changes in Amount of Indebtedness.—The total farm mortgage indebtedness in Raymond, Garfield and Mt. Pleasant townships was $446,412 in 1910. According to Table 1 and Figure 2, the amount increased to $579,794 in 1915 and then more than doubled during the next five years. From $1,191,599 in 1920 there was a slight increase to $1,222,696 in 1925, and then a considerable decline to $991,909 in 1930. As will be shown later, more than 50 per cent of this reduction in indebtedness was accounted for by foreclosures. Table 1 also shows the amount of debt represented by loans of different ranks. Table 2 indicates what percentage of the total recorded indebtedness was secured by first mortgages, second mortgages, etc. The same information is shown graphically in Figure 3. It is noticeable that in 1910 almost 90 per cent of the debt came from first mortgage loans. Then as rising prices and easier credit conditions came on up to 1920, loans secured by junior mortgages increased faster in amount than did the total indebtedness. Between 1915 and 1920 first-mortgage funds increased 102.2 per cent whereas second-mortgage loans increased 131.8 per cent. There was a further relative increase in junior mortgage financing during the next five years, but necessity rather than easier credit may have accounted for this increase. In 1925 only 84.1 per cent of the total debt was secured by first mortgages. The enforced liquidation of the next five years reduced the first-mortgage debt by 10.9 per cent while 64.4 per cent was slashed off the second-mortgage indebtedness. With rising prices and rising land values the borrower's equity in the farm naturally increases, and it may then become easier to secure additional funds by means of a junior mortgage loan than by means of increasing the existing first mortgage. Conversely, during periods of falling prices and declining land values, the security back of the loans is decreasing. Then the combined result of the attempts of holders of second mortgages to collect or foreclose, and the foreclosure by holders of prior first mortgages which wipe out the junior liens, will tend to reduce the volume of outstanding second-mortgage loans faster than the first-mortgage debt.

TABLE 1.—Total Mortgage Indebtedness on Farm Land and Amount of Each Rank, Every Fifth Year, 1910 to 1930 Inclusive

Year	Total Mortgage Indebtedness	Sum of First Mortgages	Sum of Second Mortgages	Sum of Third Mortgages	Sum of Fourth Mortgages
1910	$ 446,412	$ 400,061	$ 37,161	$ 7,740	$1,450
1915	579,794	498,417	64,598	15,520	1,259
1920	1,191,599	1,007,864	149,756	26,879	7,800
1925	1,222,696	1,027,789	187,601	3,400	3,906
1930	991,909	915,598	66,858	9,453	-----

Index of Change in Indebtedness.—Table 3 and Figure 2 give an index of the change in total indebtedness. Taking the amount in 1910 as a base

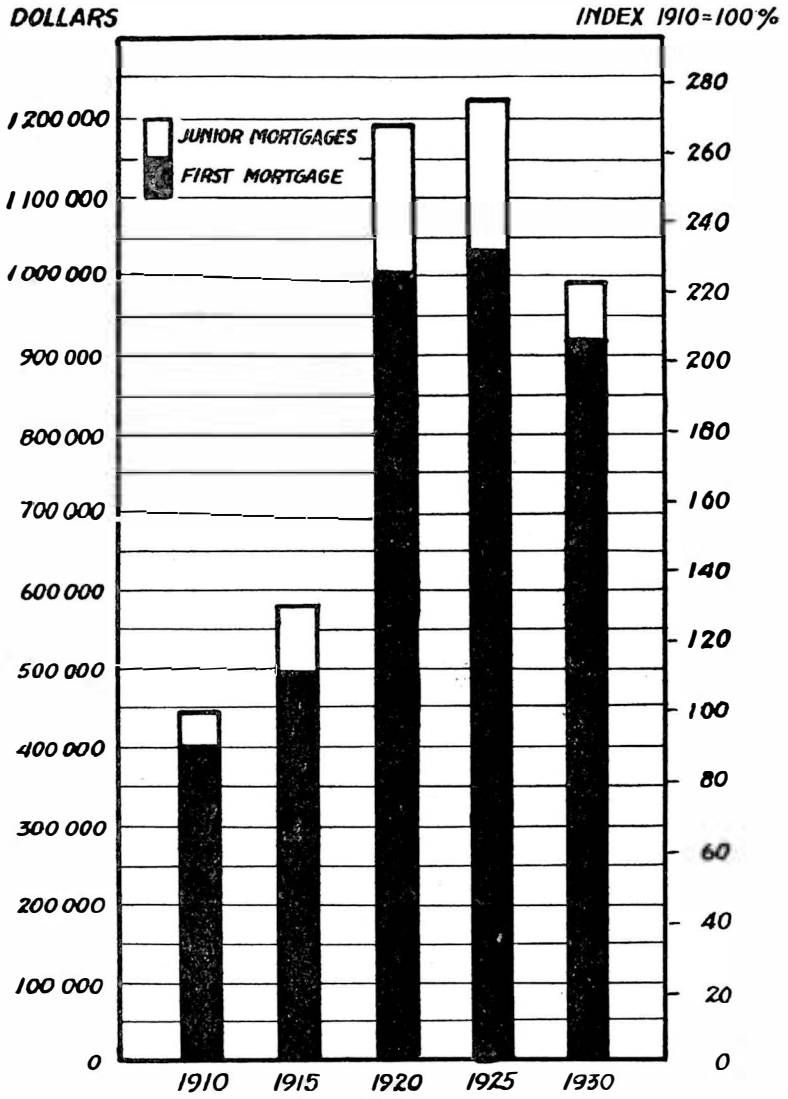

Figure 2.—Total amount of indebtedness, index of change in indebtedness, and relative amounts in first and junior mortgages every fifth year, 1910-1930. (Based on Tables 1 and 3.)

TABLE 2. Percentage of the Total Farm Real Estate Mortgage Indebtedness Represented by Loans of Each Rank Every Fifth Year From 1910 to 1930 Inclusive

Year	Total Mtg. Indebtedness	Percentage in First Mtgs.	Percentage in Second Mtgs.	Percentage in Third Mtgs.	Percentage in Fourth Mtgs.
1910	$ 446,412	89.7	8.3	1.7	.3
1915	579,794	86.0	11.1	2.7	.2
1920	1,191,599	84.6	12.5	2.3	.6
1925	1,222,696	84.1	15.3	.3	.3
1930	991,909	92.3	6.7	1.0	0.0

or normal of 100 per cent we find a 30 per cent increase during the subsequent five years and then more than a doubling of the debt in the five years of war inflation ending with 1920. At the end of this ten-year period the index stood at 267. It is possible that the increase to 274 per cent in 1925 was due to the need for funds to meet existing obligations at a time when farm income was reduced. The reduction of bank deposits may also have made it necessary to convert short time bank loans into longer term loans secured by farm mortgages. Second mortgages may also have had to be given as additional security for existing bank loans. In view of the comparative costs and prices for the two years it is evident that the 1930 volume of indebtedness, being 122 per cent above that of 1910, was a much heavier burden for the farmer borrowers than was the 1910 debt. This is an illustration of the harm suffered by farmers and other long-term borrowers as a result of violent fluctuations in the price level which lead to excessive borrowing during inflation. Such large loans may become a crushing burden of debt during the succeeding deflation period of greatly reduced farm incomes. Table 4 shows the percentage increases and decreases in total indebtedness by five-year and ten-year periods.

TABLE 3.—Index of Change in Total Indebtedness Every Fifth Year From 1910 to 1930

Year	Index of Change in Total Indebtedness 1910=100%	Total Mortgage Indebtedness
1910	100	$ 446,412
1915	130	579,794
1920	267	1,191,599
1925	274	1,222,696
1930	222	991,909

TABLE 4.—Percentage Increase or Decrease in the Total Amount of Farm Mortgage Indebtedness by Periods* (Based on Table 1)

Periods	Percentage Change in Total Indebtedness	
	Increase	Decrease
1910 to 1915	29.9	
1915 to 1920	105.5	
1920 to 1925	2.6	
1925 to 1930		18.9
1910 to 1920	166.9	
1920 to 1930		16.8

* In each case the indebtedness figure for the end of the previous period is considered as 100 per cent.

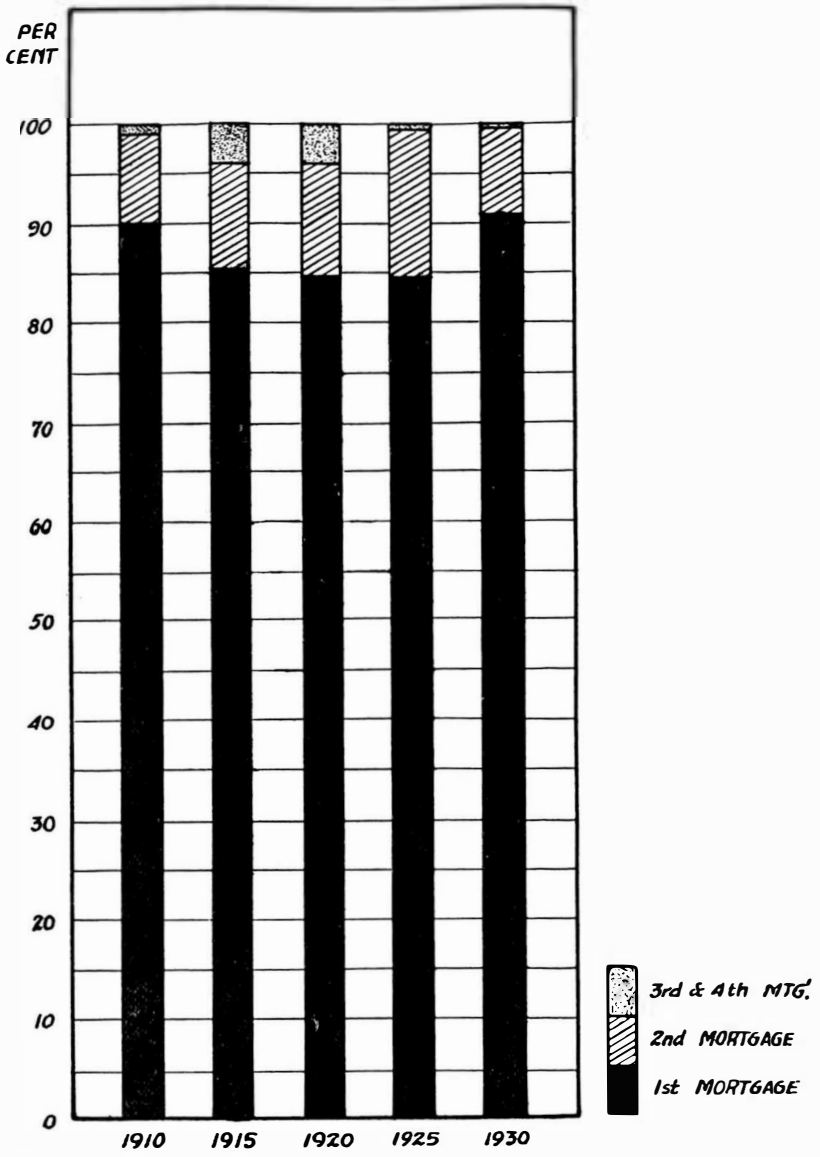

Figure 3.—Percentage of total indebtedness represented by mortgages of different ranks, 1910-1930. (Based on Table 2.)

Acreage Mortgaged

Area and Relative Changes.—With the great increase in indebtedness from 1910 to 1920 it was natural that there would be some increase also in the acreage covered by mortgage. However, the increase in the incumbered acreage, as indicated by Table 5 and by Figure 4, was proportionately not nearly as great as the increase in the total debt. The 27,437 acres under mortgage in 1910 was less than 40 per cent of the total area in the three townships. By 1920 this had increased to 37,021 acres, or nearly 54 per cent of the total area. During the following ten years, although 6,640 acres were lost by the owner-borrowers through first-mortgage foreclosures, the acreage under mortgage was reduced by less than 1,000 acres. Comparing the index of mortgaged acreage in Table 5 with the index of total indebtedness in Table 3 it will be seen that the amount of debt has undergone the greater relative changes. From a base taken as 100 per cent in 1910 the index of incumbered acreage rose to 134.9 in 1920 and then declined to 131.9 in 1930. The indebtedness index, on the other hand, rose from 100 in 1910 to 267 in 1920 and fell to 222 in 1930. The index of the mortgaged acreage was slightly lower in 1925 than in 1930 whereas

TABLE 5.—Area mortgaged and the percentage which such incumbered acreage was of all land

Year	Acres mortgaged	Index of mortgaged acreage (1910=100)	Percentage of all "privately" owned land under mortgage*	Percentage of total land area under mortgage
1910	27,437	100.0	40.8	39.7
1915	32,142	117.1	47.8	46.5
1920	37,021	134.9	54.7	53.6
1925	36,081	131.5	53.4	52.2
1930	36,200	131.9	53.9	52.4

* Acres of public land deducted: 1910-1842 acres (1910 acreage assumed to be equal to the 1915); 1915-1842 acres; 1920-1441 acres; 1925-1601 acres; 1930-1921 acres.

TABLE 6.—Acreage covered by second mortgage

Year	Number of acres	Index 1910=100
1910	9,377	100
1915	11,417	122
1920	12,524	134
1925	10,591	113
1930	4,497	48

the debt index reached its peak of 274 in the former year. With the increase in land values and an increase in loans per acre it is, of course, natural that the amount of the debt would increase faster than the acreage on which the debt is placed. Conversely, during a period of declining land prices one may expect the debt to be reduced more rapidly than the mortgaged acreage is reduced. This seems to be brought about by voluntary partial repayments on existing loans, by foreclosure of junior mortgages,

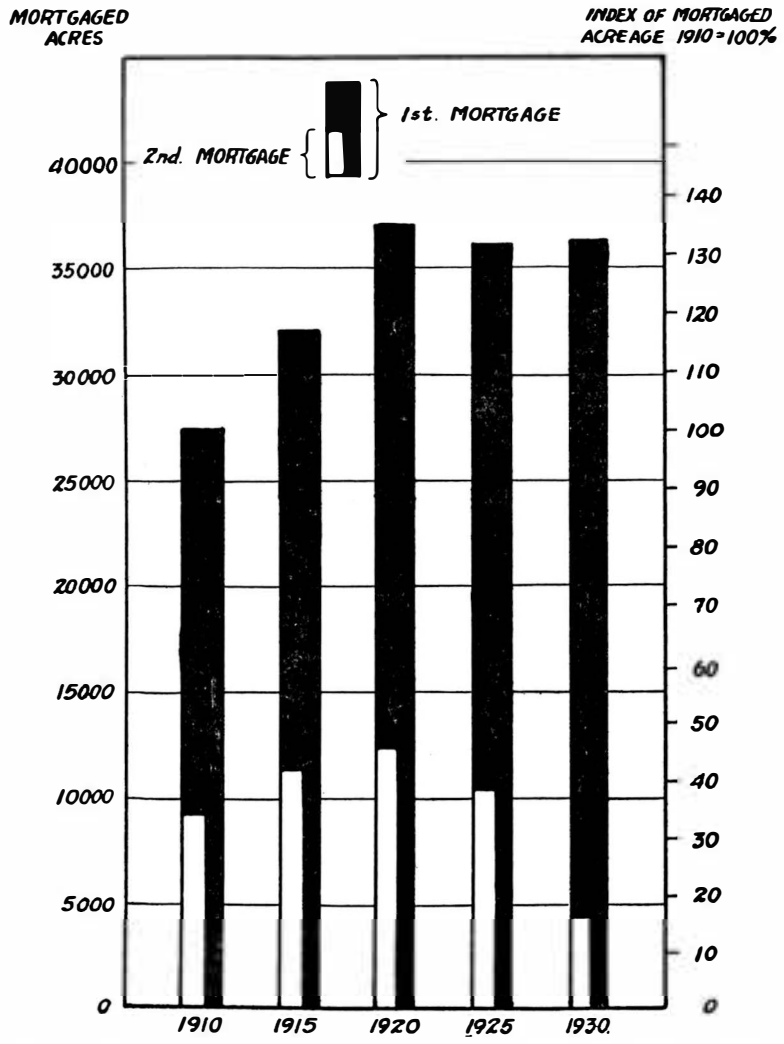

Figure 4.—Mortgaged acreage covered by first mortgage only and acreage covered by both first and second mortgages. (Based on Table 5.)

and by remortgaging of lands involved in first-mortgage foreclosures. A comparison of Tables 4 and 7 shows that from 1910 to 1920, on a percentage basis, the total debt increased more rapidly than the incumbered acreage, while from 1920 to 1930 the total indebtedness similarly declined much more rapidly than the decline in the mortgaged acreage. Attention has

previously been called to the fact that the volume of the second-mortgage debt has been subject to greater changes in amount than has been the case with the first-mortgage debt. This is also true with respect to fluctuations in the acreage covered by second-mortgage loans. The acreage and the index of the acreage of land covered by second mortgage is shown in Table 6.

This would seem to indicate that with the high ratio of first-mortgage debt to value per acre in 1930 second-mortgage loans were not favored by farm mortgage lenders at that time.

TABLE 7.—Percentage increase or decrease in incumbered acreage by periods* (Based on Table 5)

Period	Percentage change in area mortgaged	
	Increase	Decrease
1910-1915	17.1	
1915-1920	15.2	
1920-1925		2.5
1925-1930	.3	
1910-1920	34.9	
1920-1930		2.2

* In each case the incumbered acreage figure for the end of the previous period is taken as 100 per cent.

Average Debt Per Acre of Mortgaged Land

Amounts and Changes.—In 1910 the total debt per acre of mortgaged land was $16.27. As indicated by Table 8 and in Figure 5, the per-acre debt had almost doubled by 1920, when it was $32.19 per acre. The increase in the total debt per acre between 1920 and 1925 was almost as great as the increase from 1910 to 1915. From a peak of $33.89 per acre in 1925 the debt declined to $27.40 per acre in 1930. Taking 1910 as a base of 100 per cent the index of total debt per acre reached 208 in 1925 and in 1930 was still 168 per cent of the amount in 1910. By contrast, the land values for the county, according to the United States census reports (Table 30), were only 21.6 per cent higher in 1930 than in 1910. Considering the indebtedness per acre represented by the first-mortgage loans alone it is again noticeable, from Table 8 and from Figure 5, that the total debt per acre has increased and decreased proportionately more than is the case with the first-mortgage indebtedness per acre. The indebtedness index for the latter did not rise as high nor fall as low as the index for the total indebtedness, as presented in Table 8. In other words, the junior-

TABLE 8.—Average indebtedness per acre of mortgaged land and index of debt per acre at five year intervals from 1910 to 1930. (Based on Tables 1 and 5.)

Year	Average total debt per acre	Index of change in total debt per acre 1910=100%	Average first mortgage debt per acre	Index of change in first mortgage debt per acre 1910=100%
1910	$16.27	100	$14.58	100
1915	18.04	111	15.51	106
1920	32.19	198	27.22	187
1925	33.89	208	28.49	195
1930	27.40	168	25.29	173

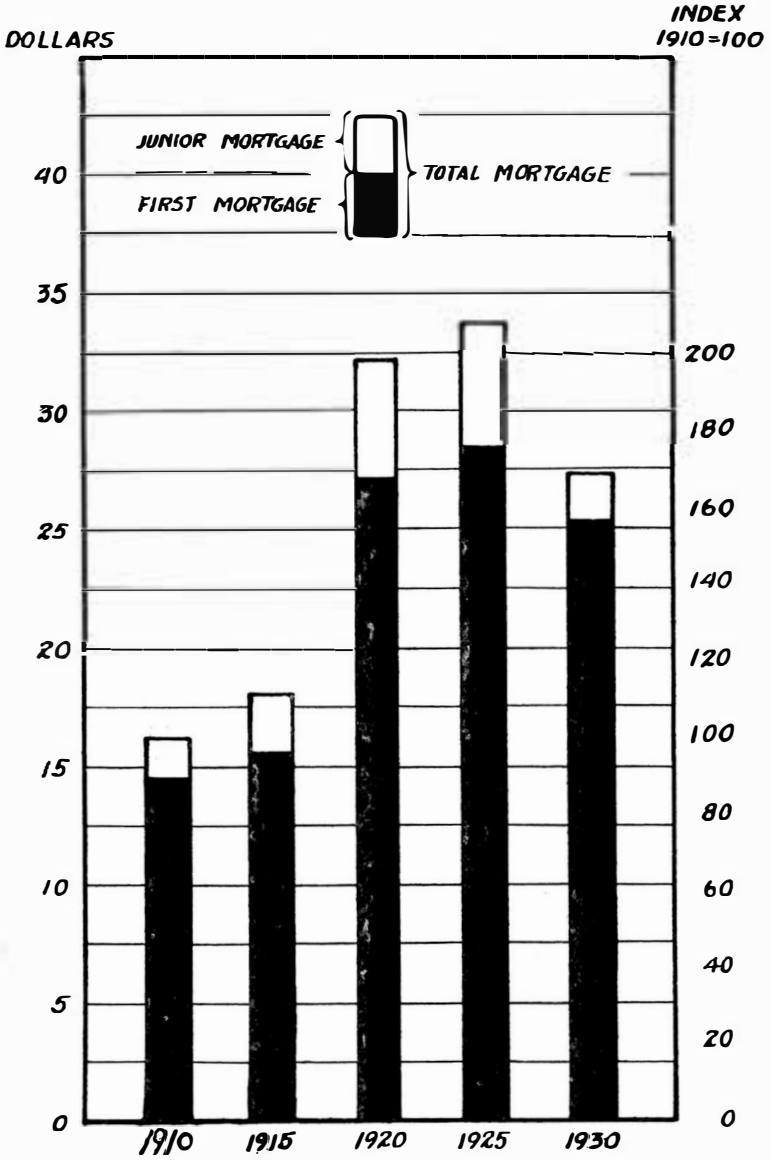

Figure 5.—Average debt per acre of mortgaged land as to first-, junior-, and total mortgage loans, with index of change in total indebtedness per acre every fifth year, 1910-1930. (Based on Table 8.)

mortgage loans underwent proportionately greater changes in amount than was the case with first-mortgage loans. Table 9 shows the percentage changes in the total debt per acre by five- and ten-year periods. The five-year periods showing the greatest changes are the 1915-1920 period with an increase of 78.4 per cent, and the 1925-1930 period with a decline of 19.2 per cent in the total debt per acre.

TABLE 9.—Percentage increase or decrease in the farm mortgage debt per acre of incumbered land by periods* (Based on Table 8)

Year	Percentage change in total debt per acre	
	Increase	Decrease
1910-1915	10.9	
1915-1920	78.4	
1920-1925	5.3	
1925-1930		19.2
1910-1920	97.8	
1920-1930		14.9

* In each case the debt per acre figure for the previous period is taken as 100 per cent.

Precautions Against Excessive Borrowing.—It is obviously sound advice to say that one should be careful not to over-borrow during boom periods with high prices, because of the extreme difficulty of meeting the payments on such large debts in later periods when prices and farm income are low. The difficulty with this advice lies in its application. The problem is to know what the price level will be in the future. Information on this problem unavoidably is uncertain. Some normally reliable forecasts can be made from available statistics and known relationships, but many events are unpredictable. Wars, inventions, climatic conditions and yields, changes in international tariffs and other trade restrictions, financial disturbances, etc., may at any time destroy the accuracy of an otherwise reliable forecast as to the probable future trend of prices. The study of forecasts of prices and economic conditions published by the United States Department of Agriculture, agricultural colleges and other institutions are nevertheless to be recommended, not because they are always reliable, but because they are the best available. If one makes use of these various sources of information and then exercises caution and conservatism in assuming large financial obligations the result should be beneficial. In addition to individual efforts of this kind to minimize the harmful consequences of price fluctuations, all large public and private institutions and organizations should bend their efforts toward establishing more stable employment and prices. By these means the risk attendant upon making long term contracts to pay money, such as mortgaging the farm as security for a large loan to be repaid in some future year, would be reduced. Preventing a repetition of the colossal damage caused by the violent war and post-war price disturbances is urgently needed.

Foreclosures

Foreclosures Insignificant Before 1920.—Foreclosures were almost negligible in the three townships studied during the years from 1911 to 1920 inclusive. Table 10 shows only $14,670 worth of mortgages terminated by foreclosures during these 10 years, and of this amount $3,700 was redeemed. The net loss during each five-year period was thus only about one per cent of the total indebtedness at the beginning of each such period. During these 10 years the income of agriculture relative to that of other industries was comparatively good. During the period of the war and post-war inflation up to 1920 the prices of farm products were rising, the borrower's prospective ability to pay seemed good, and the security back of the loan was enhanced with the increase in land values. Under these conditions there were few occasions for instituting foreclosure proceedings, and redemptions amounted to 25.2 per cent of the volume of loans on which foreclosure was begun. Figure 6 shows graphically the relative volume of foreclosures during the various periods.

Heavier Foreclosures After 1920.—To all who are familiar with the course of prices and farm incomes during the post-war decade from 1921 to 1930 inclusive it is not surprising that foreclosures increased greatly in comparison with the previous 10 years. The total foreclosures of $280,960 from 1921 to 1930 inclusive amount to almost 20 times the volume of the preceding ten-year period. Table 10 shows that mortgages equal to 23.6 per cent of the large indebtedness of 1920 were terminated by foreclosures during the succeeding 10 years. The second half of this decade registered a slightly larger volume of foreclosures than did the first half, as to amount but not as to percentage of total debt. The large foreclosure losses during these 10 years are a consequence of the war-begotten boom prices, inflated land values and correspondingly larger loans followed by one of the worst declines in agricultural prices in our history. The war demand for commodities, together with the greatly increased volumes of money and credit naturally brought on higher prices. This led many farmers to go into debt on the mistaken assumption that the high prices would continue. But the

TABLE 10.—Amount of farm real estate mortgage loans foreclosed upon during four successive five-year periods and for two successive ten-year periods, with ratio of volume of foreclosures to total indebtedness* at beginning of each period from 1911 to 1930 inclusive

Period	Total Amount of Foreclosures	Total Debt at Beginning of Period	Per Cent of Total Debt Foreclosed
1911 to 1915 inclusive	$ 8,270†	$ 446,412	1.9
1916 to 1920 inclusive	6,400‡	579,794	1.1
1921 to 1925 inclusive	138.903§	1,191,599	11.7
1926 to 1930 inclusive	142,057	1,222,696	11.6
1911 to 1930 inclusive	14,670	446,412	3.3
1921 to 1930 inclusive	280,960	1,191,599	23.6

* The total indebtedness at the beginning of each period is the amount of indebtedness the previous year: 1910 debt for the 1911-15 period. etc.

† $2300 redeemed (240 acres).

‡ $1400 redeemed (80 acres).

§ $6000 redeemed (240 acres).

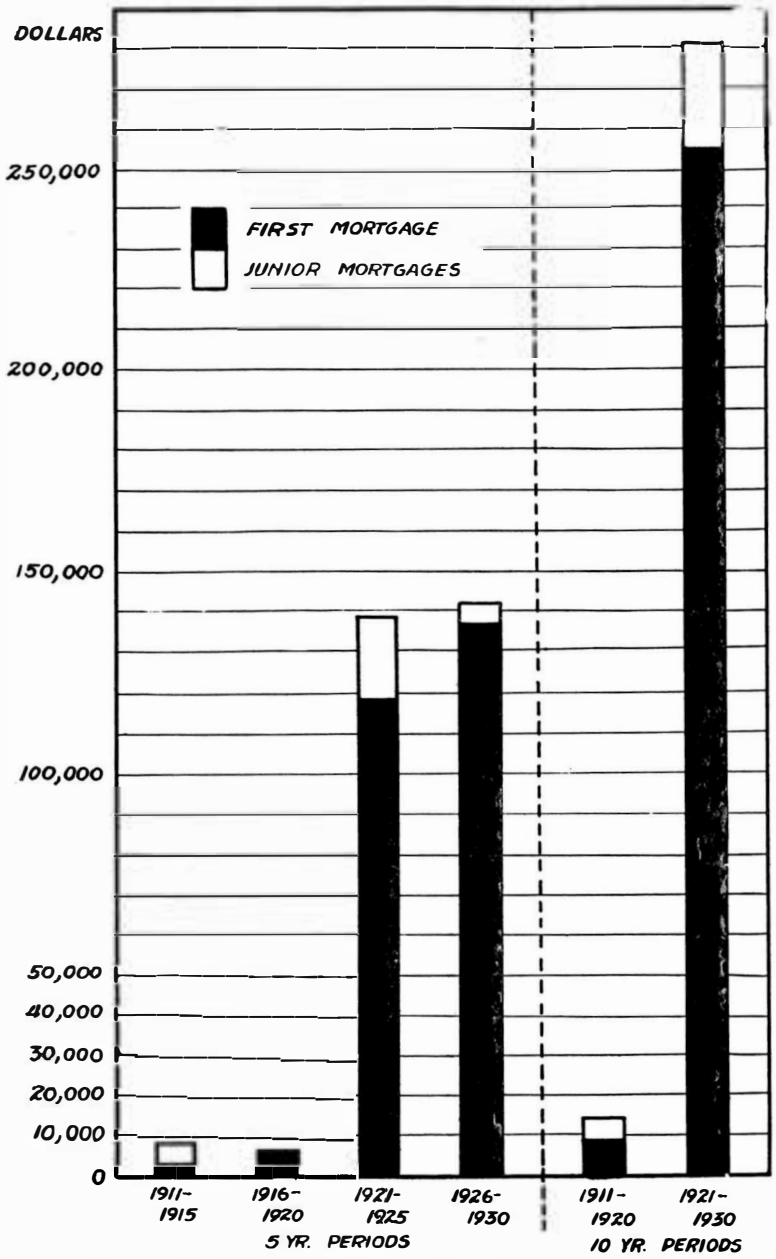

Figure 6.—Amount of mortgage loans foreclosed during successive five-year periods and successive ten-year periods
(Based on Tables 10 and 11.)

economic disorganization and maladjustment created by the war inevitably brought on the succeeding deflation and depression to the ruination of many farmers who were in debt.

Rank of Foreclosed Loans.—Table 11 shows the distribution of foreclosures between loans of different ranks. Only the 1911-1915 period shows a higher percentage of foreclosures among second mortgages than among first-mortgage loans. However, this table does not reveal the true situation with respect to all the terminations of loans as a result of foreclosure proceedings, for the reason that a second mortgage may be terminated just as effectively by the foreclosure of the first mortgage as by independent action on the part of the holder of the second mortgage. The percentage reduction of the second-mortgage indebtedness caused by the combined result of foreclosures of second mortgages and "cut outs" through the foreclosure of first mortgages is as follows: 16.9 per cent during the 1911-1915 period; zero during the next five years; 34.1 per cent during the 1921-1925 period; and 17.9 per cent during 1926 to 1930 inclusive. In each case the base, or 100 per cent, is the amount of second-mortgage indebtedness at the end of the previous period. Thus the 1910 second-mortgage indebtedness is used as the base of 100 per cent for the foreclosures of the 1911-1915 period. On a percentage basis the forced termination of second-mortgage loans as a result of foreclosure actions by the holders of both first or second mortgages is thus seen to have been greater than the percentage of first mortgages wiped out by foreclosures. This is undoubtedly one of the reasons for the more rapid reduction of the volume of second mortgage indebtedness following 1925. When one considers that an amount of second mortgage debt equal to 34 per cent of the volume of the second-mortgage loans on record in 1920 was terminated by foreclosures during the succeeding five years and that the recorded volume of this type of loan nevertheless was 25 per cent higher in 1925 than in 1920 it becomes apparent that either there was an urgent need for this type of loan or else this type of security was in demand to bolster up pre-existing inadequately secured loans. Very likely both factors were contributory causes of the increase. Unfortunately the county records do not indicate anything in regard to the causes of the recorded mortgage transactions.

TABLE 11.—Distribution of the volume of foreclosures according to the rank of the mortgages foreclosed in successive five-year periods from 1911 to 1930 inclusive, and the percentage of the loans of each rank involved in foreclosures

Period (inclusive)	First Mtgs. Foreclosed		Second Mtgs. Foreclosed		Third Mtgs. Foreclosed	
	Amount	Percen'ge	Amount	Percen'ge	Amount	Percen'ge
1911-1915	$ 2,300*	.57	$ 5,970	16.1	$ 0	---
1916-1920	6,400†	1.3	0	---	0	---
1921-1925	119,203	11.8	17,200‡	11.5	2,500	9.3
1926-1930	137,189	13.8	4,868	2.6	0	---

* $2,300 redeemed (240 acres)
† $1,400 redeemed (80 acres)
‡ $6,000 redeemed (240 acres)

Acreage Foreclosed On.—The acreage involved in foreclosures was small during the first 10 years under consideration. From 1911 to 1915 inclusive, according to Table 12 and Figure 7, 680 acres were foreclosed on. Of this amount 240 acres were redeemed. During these five years the net

loss was thus about 1.6 per cent of the area which was incumbered in 1910. During the subsequent five years ending with 1920 less than one per cent of the 1915 incumbered acreage was lost to the owners as a result of foreclosure proceedings; foreclosures involved 320 acres, but 80 acres were redeemed. During the succeeding five years of 1921-1925 there was more than a ten-fold increase in the acreage on which mortgages were foreclosed. The 3,227 acres involved represent 8.7 per cent of the 1920 incumbered acreage, but 240 acres were redeemed. Perhaps because of smaller loans per acre after 1925 the acreage subject to foreclosure during the five-year period from 1926 to 1930 inclusive increased relatively faster than the sum of the loans involved. A comparison of Figures 6 and 7 will make this evident. It will also be seen by a comparison of the two ten-year periods, before and after 1920, that the percentage increase in the second decade over the first was greater in the case of amount of loans than in the case of acreage. One would naturally expect this in view of the larger loans per acre in force on the land as a result of the war inflation. According to Table 12 foreclosures from 1911 to 1920 inclusive amounted to 1,000 acres or 3.6 per cent of the incumbered acreage in 1910. During the 1921-1930 ten-year period 8,427 acres were lost to the owners through foreclosure. This is 22.8 per cent of the incumbered acreage in 1920. The greatest of such losses to land owners occurring during any five-year period came in the period form 1926 to 1930, when title to 5,200 acres, or 14.4 per cent of the acreage under mortgage in 1925, was lost through foreclosure.

TABLE 12.—Acreage of land involved in mortgage foreclosures during four sucessive five-year periods and for two successive ten-year periods, with ratio of foreclosed acreage to incumbered acreage* at beginning of each period from 1911 to 1930 inclusive

Periods	Total Acres in Foreclosures†	Total Incumbered Acreage at Beginning of Period	Per Cent of Mortgage Acreage Foreclosed
1911 to 1915 inclusive	680	27,437	2.5
1916 to 1920 inclusive	320	32,142	1.0
1921 to 1925 inclusive	3,227	37,021	8.7
1926 to 1930 inclusive	5,200	36,081	14.4
1911 to 1920 inclusive	1,000	27,437	3.6
1921 to 1930 inclusive	8,427	37,021	22.8

* The "total incumbered acreage at beginning of period" refers to the previous year; the incumbered acreage in 1910 is used with the 1911-1915 period, etc.
† Redemptions same as in Tables 10 and 11.

Are the Heavily Indebted Farms More Subject to Foreclosure?—A comparison of the debt per acre on foreclosed land with that on all other mortgaged land was attempted. The average total debt per acre, as of the time of the foreclosure, on land foreclosed on during each five-year period was compared with the average per-acre debt of all other incumbered land as of the beginning and end of each five-year period. Thus the average debt at the time of foreclosure on land foreclosed on during 1911 to 1915 inclusive was compared with one-half the sum of the 1910 plus the 1915 average debt per acre on all other mortgaged land. This comparison can be only approximately indicative of conditions because the loans compared are not of contemporary origin. The comparison such as it is, however, shows that the four tracts of land foreclosed during the 1911-1915

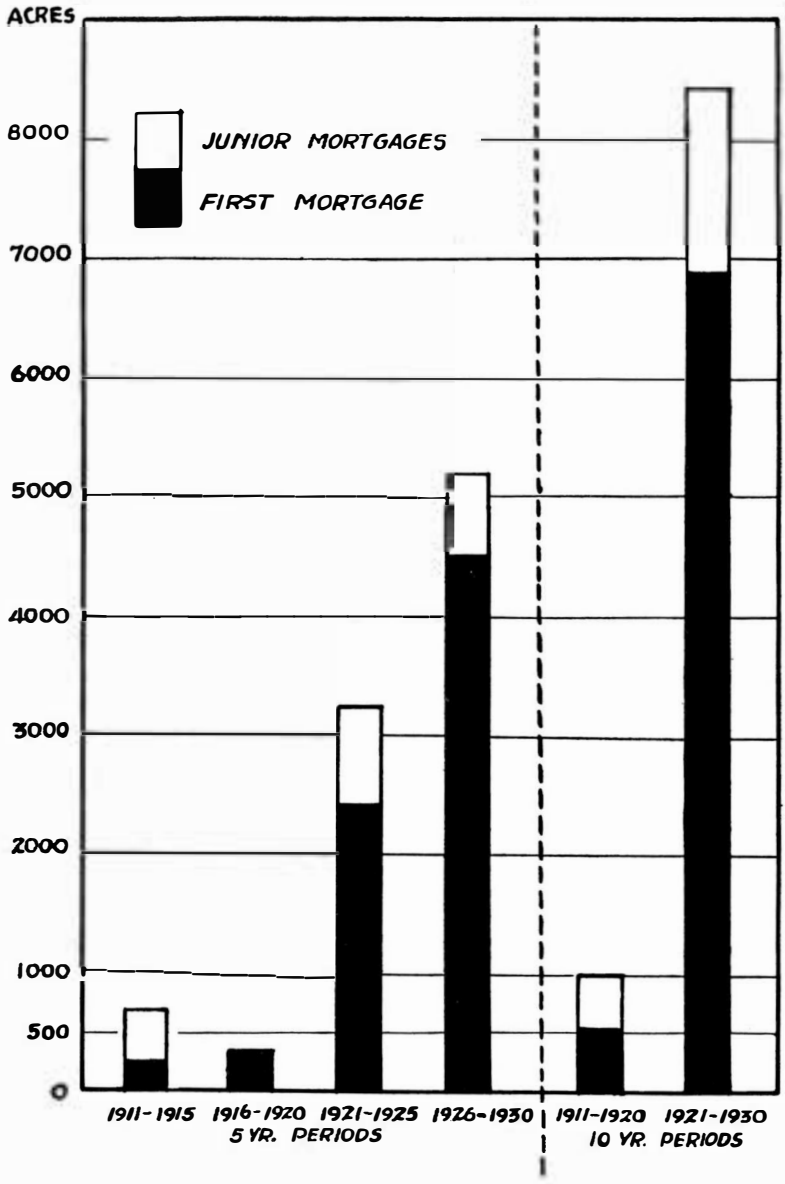

Figure 7.—Acreage involved in mortgage foreclosures during four successive five-year periods, or two successive ten-year periods. (Based on Table 12.)

period (one in 1913, two in 1914, and one in 1915) averaged a 59 per cent higher debt per acre than was the case with the other incumbered land. The two foreclosures during the 1916-1920 period, both occurring in 1916, and hence most nearly comparable with the 1915 general indebtedness, showed an 11 per cent higher per acre debt than the other acreage under mortgage in 1915. For the succeeding five years, during which the average debt per acre changed but little, and with several foreclosures, the foreclosed land carried a debt averaging 111 per cent higher than the non-foreclosed land under mortgage. For the last five years under consideration, from 1926 to 1930 inclusive, the foreclosed land registered a 16 per cent higher indebtedness per acre than the incumbered land that was not foreclosed. This comparison, although not conclusive, seems to indicate what is commonly assumed, that the land which is heavily mortgaged is more likely to be lost through foreclosure of the mortgage than land only moderately incumbered. Naturally the owner should avoid placing an excessively large loan on his farm. What is an excessive loan must be considered in relation not only to present income but also in relation to the prospective future net income. Mortgaging the farm heavily during periods of inflated prices is especially dangerous.

Delinquent Loans

How Delinquency Has Been Determined.—Delinquency is usually a prerequisite to foreclosure, but foreclosure is not an inevitable consequence of delinquency. The extent or prevalence of delinquency is a measure or indicator of the borrowers' difficulty in making the payments promptly when due. As used here a loan was considered delinquent when the principal was past due and unpaid according to the record. Insofar as all payments made on the principal of the loan were not recorded on the county records the data in this circular will tend to exaggerate both the total debt and the amount delinquent. In the case of amortization loans information has been sought from each lending agency to determine the existence and extent of delinquency. Loans payable in full at maturity have been assumed to be delinquent when past due and unpaid according to the record. A certain amount of error is unavoidable with this manner of determining delinquency because of possible neglect in recording the satisfaction or release of the mortgage when the loan has been paid. Since the time of release or satisfaction of a mortgage has been considered to be the date of the release document and not the date of recording it, delay in recording such document would cause no error in the data of this circular except in the case of documents the recording of which was delayed well beyond the end of 1930. Documents, however, which were issued and dated some time after the mortgage was due and paid would naturally result in error even if promptly recorded. On the other hand, one may also regard a loan as delinquent when the interest payment has not been made at the specified time. Since this class of delinquency is not included in the present study is it possible that the total delinquency of both principal and interest is not far from the amount given here. In other words, the omission of the delinquent interest payments may compensate for the inclusion of such loans as were paid but not released at the end of the year considered.

Amount and Percentage of Loans Delinquent.—The amount of delinquent loans is shown in Table 13 and in Figure 8. At the end of 1910 there were $24,305 in loans which were past due and unpaid. This represents 5.4 per cent of all loans in force that year. By the end of 1915 the volume of delinquency had increased to $87,059, representing 15.0 per cent of the total 1915 indebtedness. By 1920 the amount had increased to $101,096 but because of the great increase in the total debt this larger amount was equal to only 8.5 per cent of the indebtedness. Due to the price deflation which began late in 1920 there was a great increase in delinquent loans during the following five years. In 1925 such delinquent mortgages amounted to $216,750, or 17.7 per cent of the total debt of that year. With an unfavorable relationship between the farmers' selling prices and buying prices the volume of delinquent loans continued to increase, and amounted to $279,665 in 1930. Because foreclosures and voluntary payments had reduced the total debt somewhat the 1930 delinquency was increased to 28.2 per cent of the slightly reduced total debt.

Period of Delinquency.—Table 13 also indicates for each of the five years studied the amount of loans delinquent for various periods of time. For all years except 1920 a large proportion of the delinquent loans were delinquent for one year or more. As previously discussed there is some possibility of error in these figures because of failure to record the release of mortgages that have been paid. The right hand column showing the amount of loans of unknown length of delinquency refers to amortization loans where it is known that one or more installments were past due and unpaid. In such cases the whole unpaid remainder of the loan was counted as delinquent.

TABLE 13.—Total amount of farm real estate mortgage loans of all ranks delinquent* at the end of every fifth year, 1910 to 1930

Year	Delinquent Mortgages of All Ranks		Sum of Mortgages Deliquent for Various Periods				
	Amt. Del'quent*	Pct. of Total Debt Del'quent	Up to 30 Days	31 Days to 6 Months	Over 6 Mo. to One Year	Over One Year	Unknown Length of Time
1910	$ 24,305	5.4	$ 0	$ 7,050	$ 3,000	$ 14,225	$ 0
1915	87,059	15.0	4,100	25,071	17,417	39,894	577
1920	101,096	8.5	9,150	3,200	5,522	68,482	14,742
1925	216,750	17.7	0	10,838	27,090	140,827	37,995
1930	279,665	28.2	1,500	35,861	49,415	149,828	43,061

* A mortgage past due and not satisfied of record is counted delinquent in cases where inquiry has not shown extension by agreement between borrower and lender. In the left hand column headed "amount delinquent" are included some delinquent amortization loans, chiefly Rural Credit loans, which have been listed separately in the right hand column for delinquencies of unkown length or duration.

A Higher Proportion of Delinquency Among Junior Mortgages.—Tables 14 and 15 may be of interest chiefly in showing that a much higher proportion of the junior mortgages were delinquent than was the case with the first-mortgage loans. The same relationship is indicated by a comparison of Figures 2 and 8. Figure 9 also shows that delinquent junior loans formed a large share of the total delinquency. In 1910 only 3.2 per cent of the amount of the first-mortgage loans were delinquent, whereas the junior-mortgage loans were delinquent to the extent of 24.6

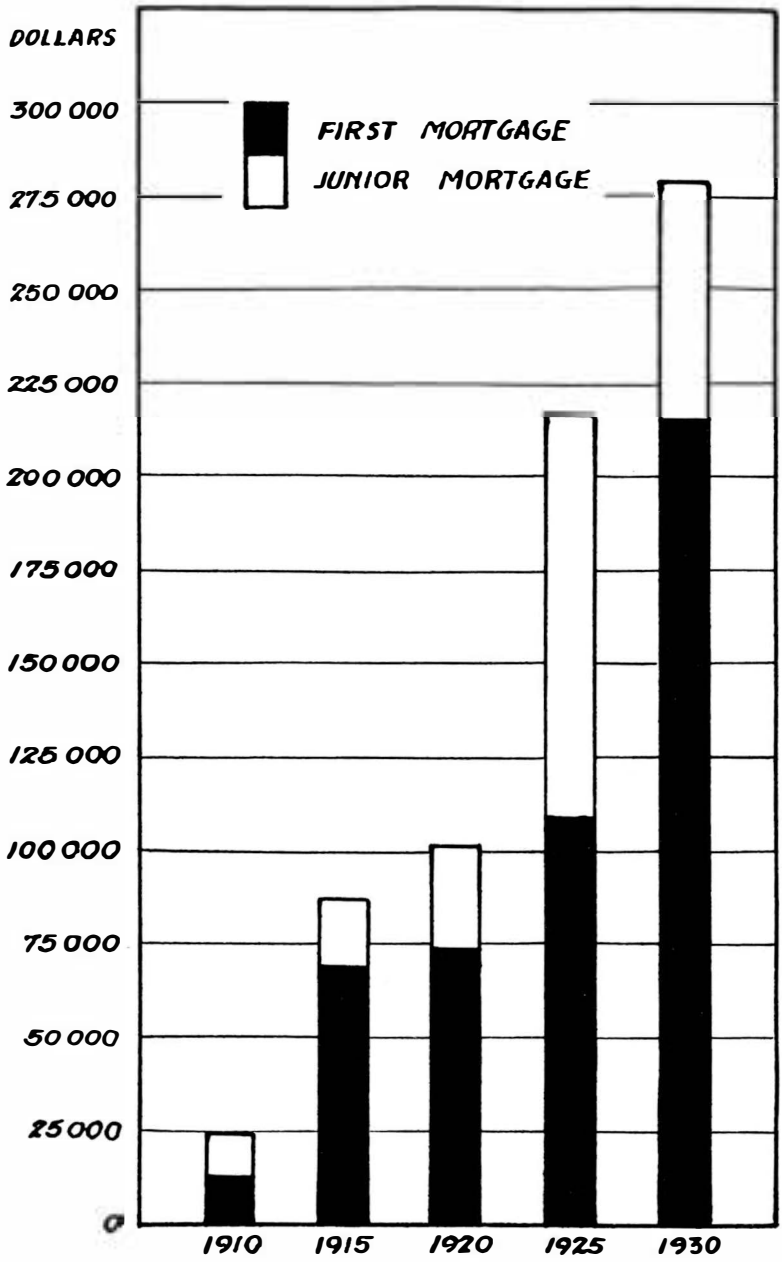

Figure 8.—Total amount of delinquent loans of all ranks every fifth year, 1910-1930.
(Based on Tables 13 and 14.)

TABLE 14.—Amount of first mortgage farm real estate loans delinquent* as to principal, and percentage of the total first mortgage indebtedness which was delinquent at the end of the years indicated, 1910 to 1930

Year	Total First Mortgage Loans Delinquent*		First Mortgages Delinquent for Various Periods				
	Amt. Del'quent	Pct. of Total First Mtg. Debt Del'quent	Up to 30 Days	31 Days to 6 Months	Over 6 Mo. to One Year	Over One Year	Unknown Length of Time
1910	$ 12,900	3.2	$ 0	$ 3,300	$ 3,000	$ 6,600	$ 0
1915	69,050	13.9	4,100	21,300	16,050	27,600	0
1920	74,364	7.4	8,150	3,000	2,072	46,400	14,742
1925	109,597	10.7	0	0	11,000	60,602	37,995
1930	213,099	23.3	1,500	31,621	38,450	98,467	43,061

* Included among "total first mortgage loans delinquent" are all loans past due and unpaid of record in cases where inquiry has not shown extension by agreement between borrower and lender. Delinquent amortization payments, chiefly Rural Credit loans, are included in the left hand column, and then listed separately in the column at the right for delinquencies of unkonwn length or duration.

TABLE 15.—Amount of junior mortgage loans delinquent* as to principal and the percentage of the total junior mortgage indebtedness which was delinquent at the end of the years indicated, 1910 to 1930

Year	Junior Mortgages Delinquent		Junior Mortgages Delinquent for Various Periods				
	Amount	Pct. of Total Junior Mtg. Debt	Up to 30 Days	31 Days to 6 Months	Over 6 Mo. to One Year	Over One Year	Unknown Length of Time
1910	$ 11,405	24.6	$ 0	$ 3,750	$ 0	$ 7,655	$ 0
1915	18,009	22.1	0	3,771	1,367	12,294	577
1920	26,732	14.5	1,000	200	3,450	22,082	0
1925	107,153	55.0	0	10,838	16,090	80,225	0
1930	66,566	87.2	0	4,240	10,965	51,361	0

* A mortgage past due and not satisfied of record is counted delinquent in cases where inquiry has not shown extension by agreement between borrower and lender.

per cent. The 1915 percentages were 13.9 for the first mortgages and 22.1 for the junior mortgage loans. In 1920 the delinquent first-mortgage funds represented 7.4 per cent of such funds outstanding, with the high prices for farm products the junior mortgage delinquency was down to 14.5 per cent. At the end of the first five years of deflation the first-mortgage delinquency had risen only to 10.7 per cent. The junior-mortgage delinquency, on the other hand, had more than trebled during these five years, and in 1925 stood at 55 per cent. Both types of loans reached their highest percentage of delinquency, for the years studied, in 1930. More than 23 per cent of the first-mortgage funds were then delinquent, while 87.2 per cent of the junior-mortgage funds were past due and unpaid, according to county records. Figure 10 presents this information graphically.

Acreage With Delinquent Loans.—The percentage of incumbered acreage on which one or more loans were delinquent is given in Table 16 and in Figure 11. According to this table there were 2,840 acres on which loans were delinquent in 1910, or 10.4 per cent of the total incumbered area. By 1915 the delinquent acreage had increased to 7,011, which was

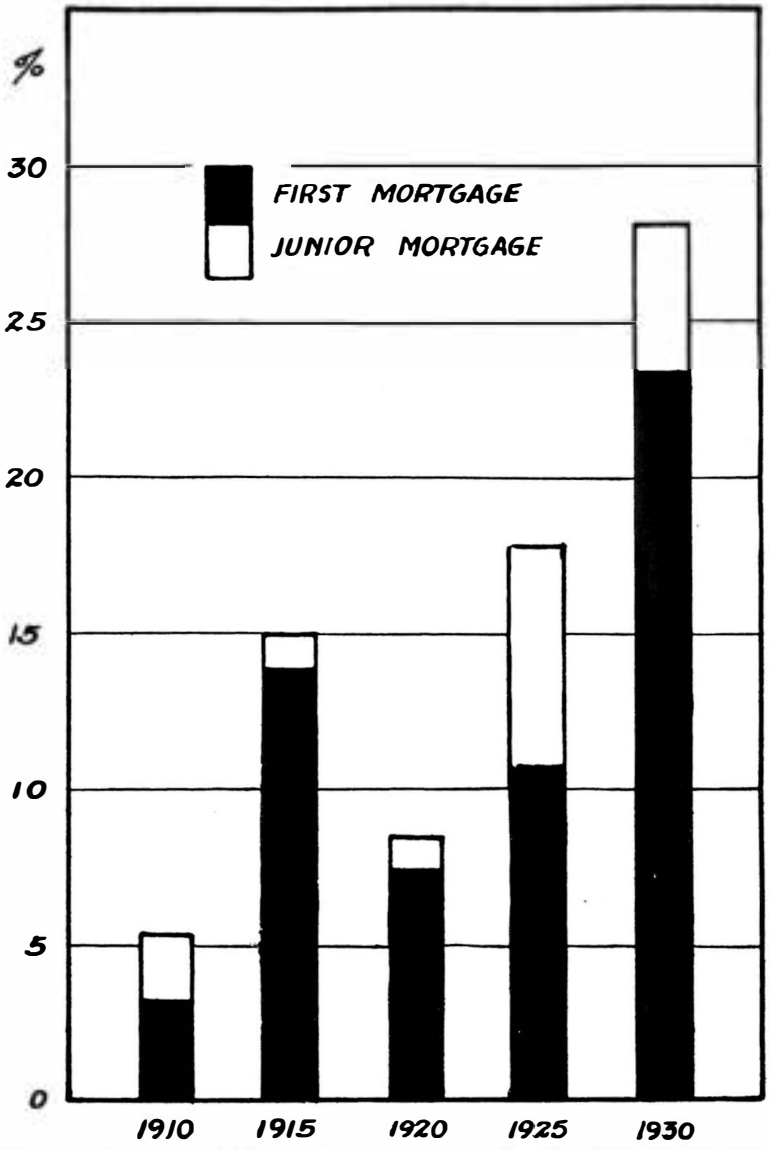

Figure 9.—Percentage of total debt delinquent at end of the years indicated, 1910-1930. (Based on Table 14.)

21.8 per cent of the incumbered area. Undoubtedly because of the rising prices during the succeeding five years, the acreage with delinquent loans had declined to 5,072 in 1920. This was only 13.7 per cent of all the land

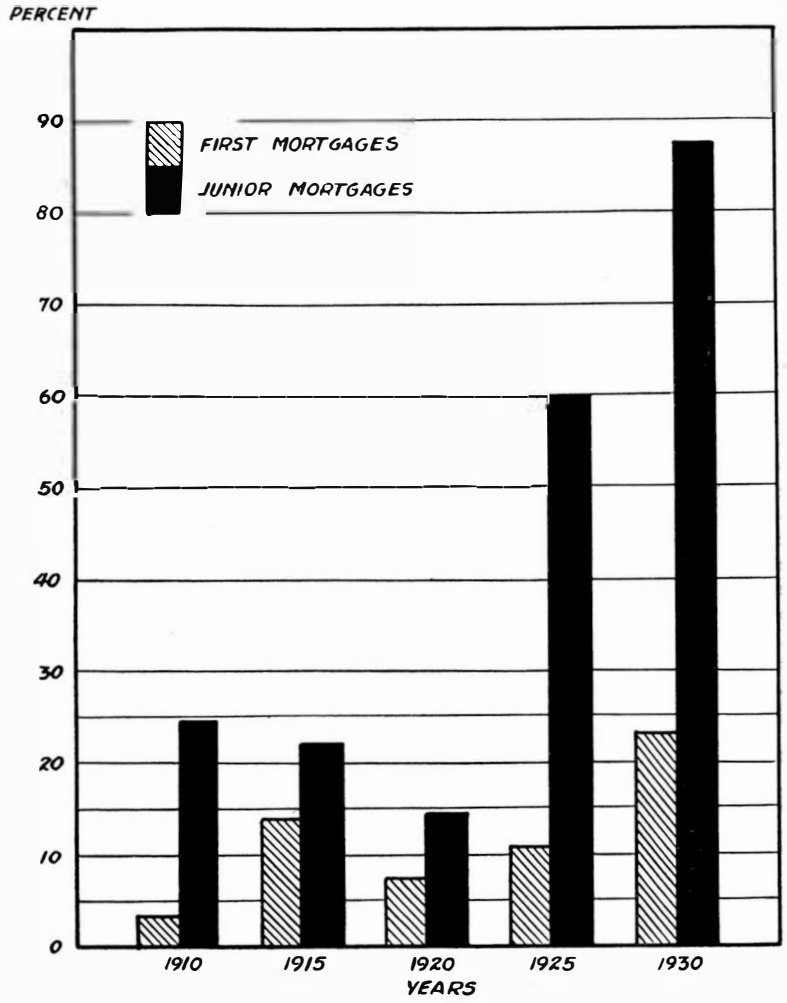

Figure 10.—Percentage of delinquency among first-mortgage and junior-mortgage loans as of end of every fifth year, 1910-1930. (Based on Tables 14 and 15.)

under mortgage. The 1925 delinquent acreage of 7,914 was somewhat in excess of that in 1915, but as a percentage of all the incumbered acreage the 21.9 per cent that year is practically the same as for 1915. Both in absolute acres and as a percentage of all the mortgaged land the peak was reached in 1930, with 9,521 acres on which there were delinquent loans. This is equal to 26.3 per cent of the area under mortgage.

TABLE 16.—Percentage of mortgaged acreage on which principal of loan was delinquent* as of the years indicated, 1910 to 1930

Year	Acreage on which Loan Was Past Due and Unpaid	Total Mortgaged Acreage	Per Cent of Mortgaged Acreage Delinquent
1910	2,840	27,437	10.4
1915	7,011	32,142	21.8
1920	5,072	37,021	13.7
1925	7,914	36,081	21.9
1930	9,521	36,200	26.3

* A mortgage past due and not satisfied of record is counted delinquent in cases where inquiry has not shown extension by agreement between borrower and lender.

Relationship Between Debts and Prices

Comparison of Debt Burden and Index of Prices.—With increases in the total debt, in the acreage mortgaged, and in the debt per acre, as well as in delinquency and foreclosures, it would appear that the farmers in this section were in a worse position in 1930 than they were in 1910. However, no exact comparison can be made without some knowledge of farm incomes for the years to be compared. Unfortunately, there is no reliable information available on this subject. In lieu of anything better it may be possible to compare the indexes of prices received by South Dakota farmers with the United States index of prices paid by farmers for commodities bought. The South Dakota index is made up of South Dakota prices of farm products weighted according to their contribution to the total farm income. Taking the 1910 prices and amounts as a base of 100 per cent, the indices of prices received by South Dakota farmers, prices paid by the United States farmers, and debt per acre of mortgaged land in the three townships studied compare as follows:

TABLE 17.—Indices of prices received and prices paid by farmers, and index of debt per acre of incumbered land

	Index of Prices Received by South Dakota Farmers for Farm Products*	Index of Prices Paid by United States Farmers for Commodities Bought†	Index of Debt Per Acre of Mortgaged Land‡
1910	100	100	100
1915	96.7	108	111
1920	195.9	210	198
1925	152.0	162	208
1930	121.2	149	168

* Index number prepared by Professor R. E. Post, South Dakota State College, and converted to a base of 1910 equal to 100 per cent.
† Converted to a 1910 base of 100 from Agricultural Yearbook, 1932, U.S.D.A., p. 900.
‡ From Table 8 of this study.

Indebted Farmer in Unfavorable Position After 1920.—These indices indicate that, unlike prices received and prices paid by farmers, the debt per acre of mortgaged land increased between 1920 and 1925. Furthermore, the decline to 1930 was not as great in the case of the debt as in the case of prices. Unfortunately the prices received by South Dakota

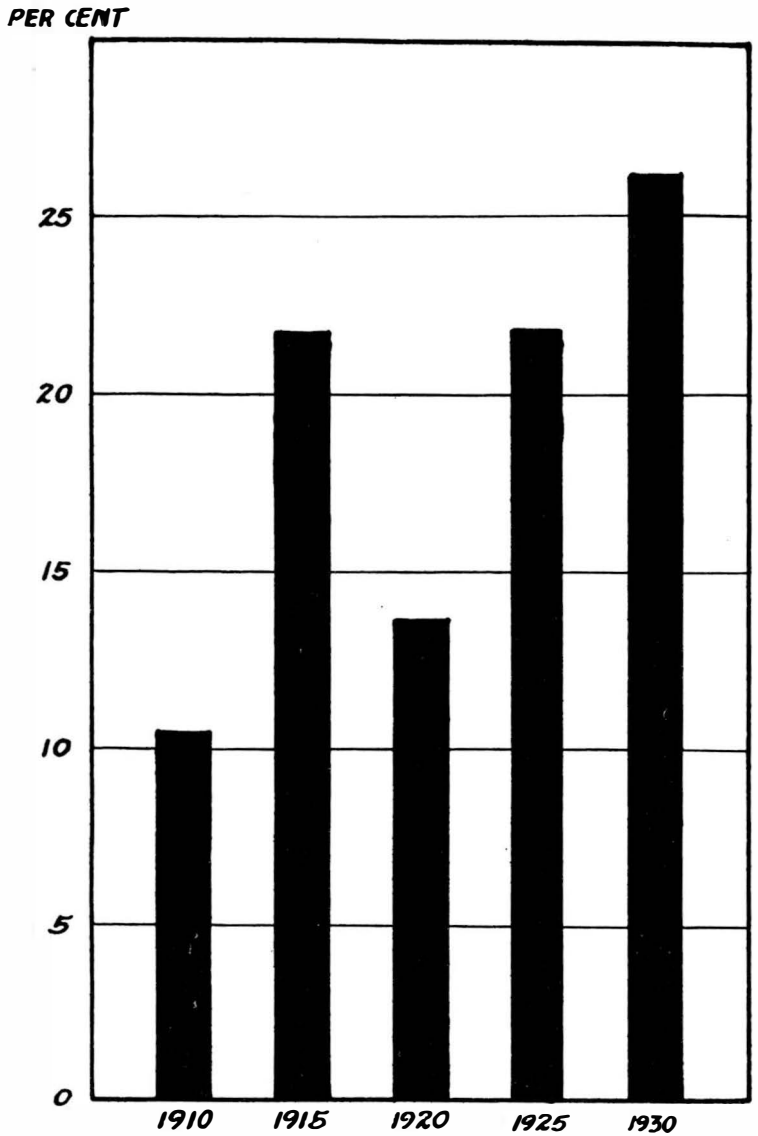

Figure 11.—Percentage of all mortgaged acreage on which principal of loan was delinquent, 1910-1930. (Based on Table 16.)

farmers fell even more rapidly than did the prices of commodities purchased by farmers. Insofar as a farmer derived most of his income from the sale of wheat he was in an even worse position than indicated by the index, but if his income came largely from cattle he was relatively better situated than a comparison of these indices indicate.

Classification of Mortgaged Land and Loans as to Debt per Acre

Method of Classification and Pre-war Distribution of Debt.—The average of the debt per acre as presented in Table 8 and in Figure 5 possesses the disadvantage of not indicating how the loans are distributed between large and small loans per acre. In order to overcome this difficulty and in order to show what proportion of the indebtedness was carried at various amounts per acre the loans were classified as shown in Table 18. Here all the loans up to and including $10.00 per acre are put in one class. The next class includes the loans of between $10.01 and $20.00 per acre. Each succeeding class increases by ten dollars. The table shows the average debt per acre in each class, and both the percentage of the total debt and the percentage of the mortgaged land falling in each class. Figure 12 presents the same data graphically. In 1910 almost 94 per cent of the land was mortgaged for amounts not exceeding $30.00 per acre. The greatest concentration was in the $10.01 to $20.00 class. Of the total debt in 1910 almost 75 per cent was on land mortgaged to the amount of between $10.01 and $30.00 per acre. There were no loans running above $50.00 per acre. By 1915 the highest debt per acre had increased to nearly $90.00. However, almost 75 per cent of the total debt was still at the rate of between $10.01 and $30.00 per acre, and 72.2 per cent of the incumbered land fell in those two classes.

Greater Range in Amount of Debt per Acre After the War.—As will be seen in Figure 12 this concentration of the bulk of the indebtedness in loans of not over $30.00 per acre was a thing of the past by the year 1920. A larger proportion of the total debt and of the mortgaged land fell in the higher indebtedness classes up to $100.00 per acre. Of the total debt 68.3 per cent was distributed fairly equally between the four classes of from $10.01 to $50.00 per acre. Of the mortgaged land 80 per cent fell in these classes in 1920. By the year 1925 there was a slightly greater concentration of the debt at somewhat higher amounts per acre. In that year 77.2 per cent of the volume of indebtedness was found in the four classes of from $20.01 to $60.00 per acre. Again, as in 1920, 80 per cent of the incumbered land was mortgaged for between $10.01 to $50.00 per acre. A glance at Figure 12 shows that the indebtedness in 1910 and in 1915 was concentrated in a few classes of relatively low debts per acre of mortgaged land. The greatest dispersion is shown in the year 1920. This is to be expected in view of the fact that some of the old loans at the rate of $10.00 or less per acre were still in force simultaneously with the existence of new large loans based on the inflated 1920 land valuation. By 1925 some of the large loans had been reduced or had been terminated by foreclosure or otherwise. This process was continued during the succeeding five years, and by 1930 there again was a fairly high concentra-

TABLE 18.—Distribution of the total farm real estate mortgage indebtedness according to the amount of debt per acre of incumbered land, every fifth year, 1910 to 1930

Classes of Indebtedness Per Acre	Average Debt Per Mortgaged Acre in Each Class, Per Cent of Total Indebtedness and Per Cent of Mortgaged Land Falling in Each Indebtedness Class														
	1910			1915			1920			1925			1930		
	Average Debt Per Acre	Per Cent of Total Debt	Per Cent of Mortgaged Land	Average Debt Per Acre	Per Cent of Total Debt	Per Cent of Mortgaged Land	Average Debt Per Acre	Per Cent of Total Debt	Per Cent of Mortgaged Land	Average Debt Per Acre	Per Cent of Total Debt	Per Cent of Mortgaged Land	Average Debt Per Acre	Per Cent of Total Debt	Per Cent of Mortgaged Land
$ 0.01 to $ 10	$ 7.20	12.8	29.0	$ 6.77	7.4	19.9	$ 7.57	1.4	5.8	$ 7.95	.7	2.8	$ 7.26	1.6	6.1
10.01 to 20	15.35	36.9	39.1	15.79	40.9	46.8	16.12	14.4	28.6	16.20	7.5	15.8	16.17	11.0	18.7
20.01 to 30	23.81	37.7	25.8	24.01	33.8	25.4	25.27	16.0	20.4	24.73	24.6	33.6	24.83	40.8	45.1
30.01 to 40	32.79	11.8	5.8	35.07	12.7	6.5	34.40	19.4	18.1	34.36	15.3	15.2	33.99	22.8	18.4
40.01 to 50	43.75	.8	.3	45.00	1.9	.7	45.97	18.5	12.9	44.57	20.2	15.4	44.97	9.8	6.0
50.01 to 60	0	0	0	0	0	0	55.91	7.5	4.3	56.20	17.1	10.3	53.30	5.4	2.8
60.01 to 70	0	0	0	62.50	.9	.2	63.30	9.2	4.7	64.20	7.7	4.0	63.03	2.2	.9
70.01 to 80	0	0	0	0	0	0	72.19	3.9	1.7	74.76	3.9	1.8	73.61	3.8	1.4
80.01 to 90	0	0	0	87.16	2.4	.5	85.57	6.3	2.4	90.00	1.8	.7	0	0	0
90.01 to 100	0	0	0	0	0	0	100.00	3.4	1.1	90.63	1.2	.4	93.75	.8	.2
100.01 to 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
110.01 to 120	0	0	0	0	0	0	0	0	0	0	0	0	113.29	1.8	.4

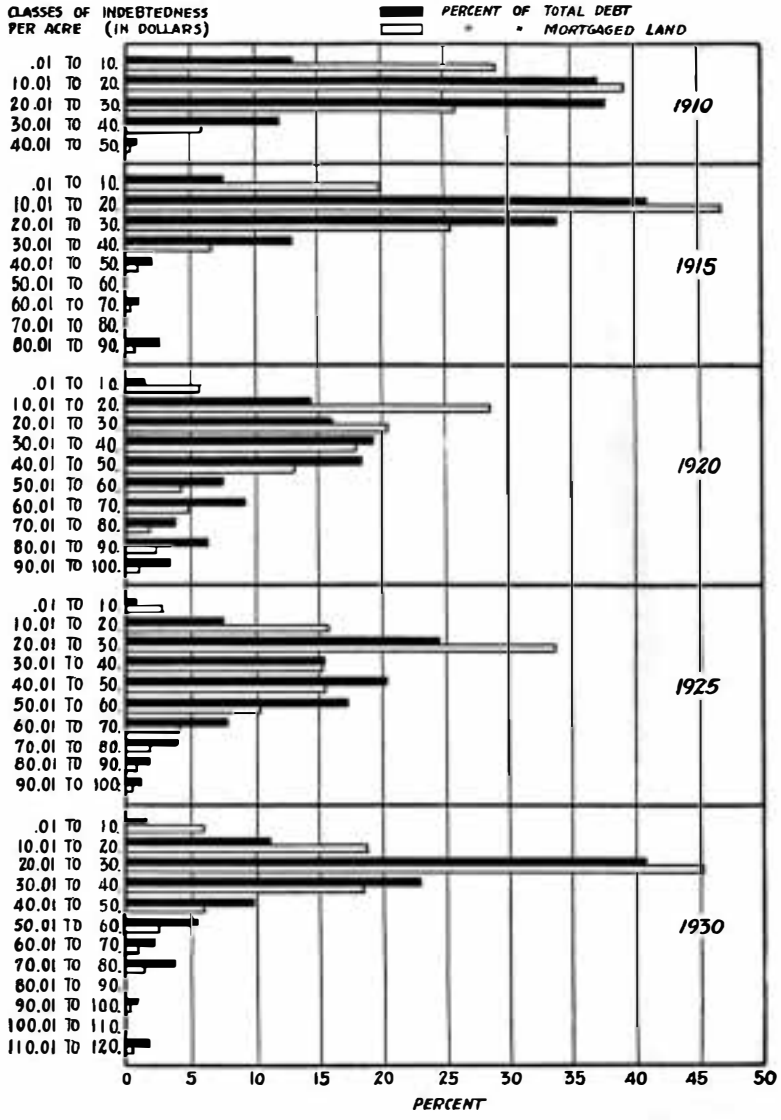

Figure 12.—Percentage of total indebtedness and percentage of mortgaged land falling in different groups or classes of indicated indebtedness per acre 1910-1930. (Based on Table 18.)

tion of the farm loans in one or two classes, but at higher debts per acre. The three classes of from $10.01 to $40.00 debt per acre accounted for 74.6 per cent of the total indebtedness in 1930. In the same year 82.2 per cent of the mortgaged acreage fell in these three classes. A few unusually high loans totaling above $80.00 per acre were still on record.

Source of Funds

Shift From Individuals to Specialized Lending Agencies.—A great shift in the source of funds has taken place during the twenty years under consideration. Individuals have furnished a continually declining proportion of the total first-mortgage funds and the proportion coming from insurance companies has continually increased. A similar shift has taken place in many other areas where insurance companies have deemed it safe to place farm loans. Considering also the increase in funds coming from the Federal Land Bank the change has been away from individuals and small financial institutions and to larger corporate financial institutions whose source of funds are adapted to long time loaning operations.

Proportion of First-Mortgage Funds From Each Source.—In 1910, according to Table 19 and Figure 13, individuals had furnished 62.8 per cent of the first-mortgage funds outstanding in the three townships studied. A little over 13 per cent had come from insurance companies. Commercial banks had provided 8.9 per cent of the first-mortgage funds. In cases of assignment of the mortgage the assignee was considered to be the source of the funds. Of the funds outstanding in 1915, 47.6 per cent came from individuals, 25.7 per cent came from insurance companies, 11.2 per cent came from commercial banks and 9.2 per cent had been provided by savings banks. The 1920 distribution of the source was 45.3 per cent from individuals, 29 per cent from insurance companies, and 8.2 per cent from the South Dakota Rural Credit board. The funds from each of the other sources amounted to less than 5 per cent each. Table 19 gives not only the percentage but also the exact amount from each source. By 1925 the proportion coming from individuals was down to 18.4 per cent of the total funds outstanding. The share coming from insurance companies had increased to 51 per cent. The Rural Credit funds amounted to 7.9 per cent, and the Federal Land Bank loans equaled 6.2 per cent of the total amount. Of the funds represented by first mortgages on record in 1930, insurance companies had furnished a slightly smaller amount but their portion of the total was increased to 54 per cent. The amount from individuals was reduced to 13.6 per cent. The funds from the Federal Land Bank had been increased both absolutely and relatively to 13 per cent whereas the Rural Credit funds had been reduced to only 7 per cent of the total. While the local commercial bankers and mortgage bankers are shown to have furnished a relatively small proportion of the total first-mortgage funds this does not indicate the extent of their importance in the system of farm mortgage financing. Many of the loans held by other agencies have been made by local bankers as agents and by them assigned to insurance companies, individuals, etc. The foregoing discussion of the source of first-mortgage funds refers to all loans, both old and new, which were on record as unpaid for the years indicated.

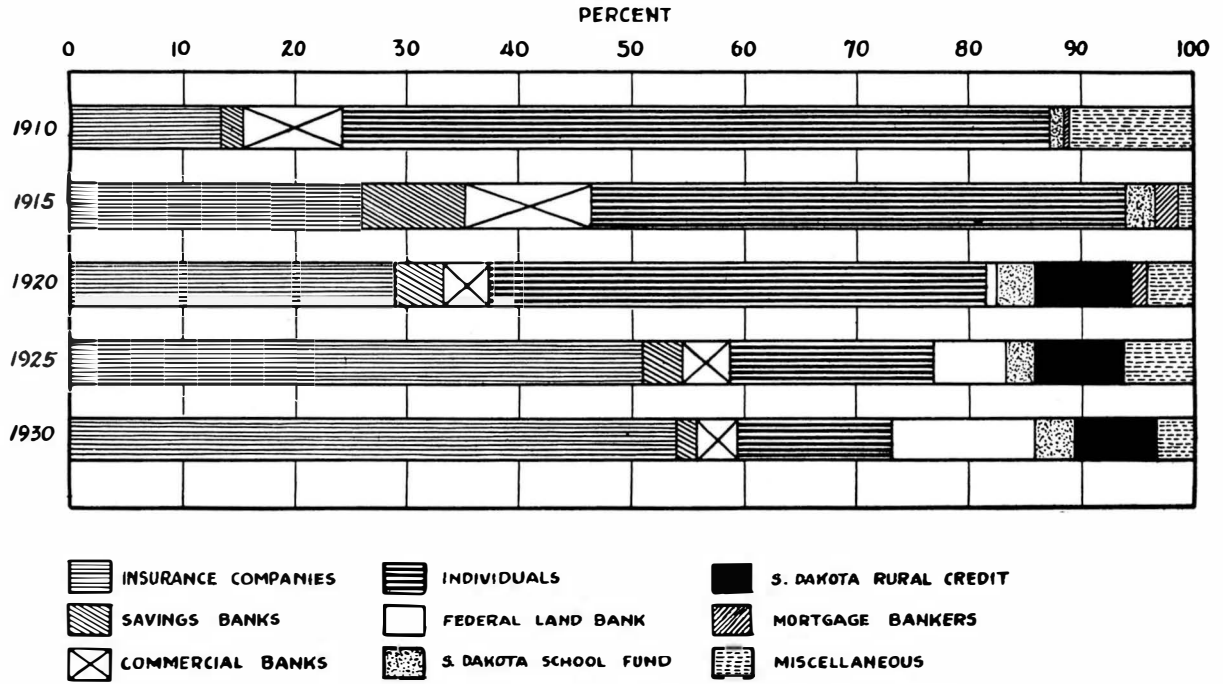

Figure 13.—Percentage of first-mortgage funds coming from various sources, 1910-1930. (Based on Table 19.)

TABLE 19.—Source of first mortgage funds: Amount and percentage of total coming from each source, every fifth year, 1910 to 1930

Source of Funds	1910		1915		1920		1925		1930	
	Amount	Per cent	Amount	Per cent	Amount	Per cent	Amount	Per cent	Amount	Per cent
Insurance Companies	$ 53,350	13.3	$128,160	25.7	$292,578	29.0	$524,591	51.0	$494,801	54.0
Savings Banks	8,000	2.0	46,020	9.2	43,200	4.3	36,900	3.6	17,000	1.9
Commercial Banks	35,734	8.9	55,877	11.2	39,262	3.9	43,834	4.2	33,274	3.6
Individuals	250,802	62.8	236,700	47.6	455,187	45.3	189,434	18.4	124,500	13.6
Federal Land Bank	*	*	*	*	9,200	.9	63,807	6.2	118,889	13.0
South Dakota School Fund	4,950	1.2	12,650	2.5	32,600	3.2	26,600	2.5	29,750	3.3
South Dakota Rural Credit	*	*	*	*	82,672	8.2	81,427	7.9	64,536	7.0
Mortgage Bankers	2,400	.6	13.010	2.6	13,500	1.3	*	*	600	.1
Miscellaneous	44,825	11.2	6,000	1.2	39,665	3.9	63,696	6.2	32,248	3.5

* No loans.

TABLE 20.—Source of second mortgage funds: Amount and percentage coming from each source, every fifth year, 1910 to 1930

Source of Funds	1910		1915		1920		1925		1930	
	Amount	Per cent	Amount	Per cent	Amount	Per cent	Amount	Per cent	Amount	Per cent
Savings Banks	$ 59	.2	$ 0	----	$ 0	----	$ 7,745	4.1	$ 0	----
Commercial Banks	15,943	42.9	31,278	48.4	42,776	28.6	94,688	50.5	25,252	37.8
Individuals	17,063	45.9	27,034	41.8	77,039	51.4	74,007	39.5	32,568	48.7
Mortgage Bankers	4,096	11.0	4,502	7.0	18,081	12.1	3,260	1.7	275	.4
Miscellaneous	0	----	1,784	2.8	11,860	7.9	7,901	4.2	8,763	13.1

New Relationship Between Debtor and Creditor.—With the changed economic conditions it may be inevitable that a larger proportion of farm mortgage funds should come from large, specialized lending agencies. This will give rise to new problems where fixed rules and impersonal relationships replaces the personal contact and understanding between borrower and lender which were characteristic of earlier days.

Second-Mortgage Funds Furnished by Individuals and Banks.—Second-mortgage funds have come from fewer sources than has been the case with first-mortgage funds. Table 20 and Figure 14 show that individuals and commercial banks together have furnished between 80 and 90 per cent of all second-mortgage funds in this area during the years under consideration. This refers to loans on record in the office of the register of deeds for the years studied. Individuals have furnished a slightly greater total than have the commercial banks. This was especially true for the loans on record in the year 1920, and may be accounted for by the fact that during the five-year period from 1916 to 1920 inclusive land sales in this area were about twice as numerous as in any other five-year period from 1910 to 1930, and by the further fact that the taking of second mortgages was very common where the full purchase price could not be paid in cash. The relative increase in 1925 in the proportion of the second-mortgage funds coming from the banks may be due to the fact that during the deflation years from 1921 on it became necessary for many of the local banks almost everywhere to procure addi-

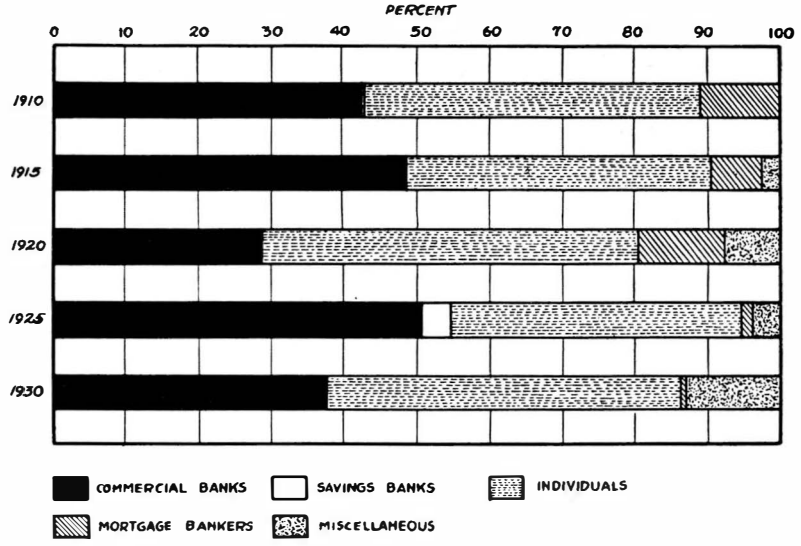

Figure 14.—Percentage of second-mortgage funds coming from various sources, 1910-1930. (Based on Table 20.)

tional security for many of their outstanding loans. Urgent need for funds and lack of sufficient unpledged collateral on the part of farmers may also have made it necessary for the banks to accept second mortgages on land as security in cases where they felt called upon to assist their clients with new loans. Since admittedly the risk on second mortgages is greater than on first-mortgage loans, local individuals and local banks would seem to be the logical ones to extend such credit because they are in position to observe the progress of the borrower and can protect themselves to better advantage than can a distant lending agency. Second-mortgage loans held by mortgage bankers are mainly mortgage loans taken as commissions on first-mortgage loans assigned to some other agency.

Cost of Funds

What Costs?—The cost of funds considered in this discussion refers to the recorded interest and commission charges. In addition to these costs the borrower usually must pay for bringing the abstract up to date, must pay the recording fees, possibly attorney fees for examination of the title, besides time spent in procuring the loan. These expenses may add materially to the cost of short term loans with frequent renewals. Commissions may also be paid in cash, but such cash payments will not be on record; consequently the amount of such cash commissions is unknown.

Interest Rates on Outstanding First Mortgages.—Weighting the interest rate by the volume of loans, Table 21 shows that the rate on first-mortgage loans was 6 per cent both in 1910 and in 1915. By 1920 it was down to 5.9 per cent and then declined to 5.7 in 1925 and 5.6 in 1930. To this must be added a .7 per cent commission in the first two years considered and a .5 per cent commission in the later years in the case of all loans on which commissions equaled the average of those recorded. However, it is not known how large or how frequent cash commissions have been.

Rates on Outstanding Second Mortgages.—The weighted average interest rate on second mortgages was 7.4 per cent in 1910, 7 per cent in 1915, and 6.7 per cent in 1920. The average was up to 7 per cent again in 1925 but in 1930 it was down to 6.4 per cent, or just one per cent lower than in 1910, as shown in Table 21.

TABLE 21—Cost of first and second mortgage funds: The weighted rate of interest and commission as averages of all first mortgage loans and all second mortgage loans in force, every fifth year, 1910 to 1930

	First Mortgages				Second Mortgages	
	Rate of Interest		Rate of Commision		Rate of Interest	
Year	Per Cent	Number of Observations	Per Cent	Number of Observations	Per Cent	Number of Observations
1910	6.0	132	.7	21	7.4	25
1915	6.0	154	.7	20	7.0	37
1920	5.9	165	.5	10	6.7	43
1925	5.7	164	.5	2	7.0	48
1930	5.6	158	.5	1	6.4	24

Current Interest Rate on First Mortgages.—The average does not tell us how many cases were above and how many were below the average, nor does it tell us how much each varied either way from the average. Table 22 and Figure 15 are presented in order to get a more detailed picture of the interest rate currently charged at various periods. Here are indicated the number of mortgages drawing the various rates of interest which were recorded during each period covered. The periods are of 24 months each in order to have a larger number of cases than the few mortgages that might be recorded in a single year. Each period covers the time from six months before to six months after the year indicated, except that for the last year the period covers only the 18 months ending with December 31, 1930. Both Table 22 and Figure 15 show clearly that for the years 1910, 1915 and 1920 the prevailing rate charged on first mortgages was 6 per cent. Some loans were placed at other rates but from 65 to 80 per cent of all loans negotiated during this period drew 6 per cent interest. For the 1925 period 69 per cent of the recorded mortgages specified a 5 per cent interest rate, and 17 per cent drew 6 per cent. In 1930 the 5 per cent and the 6 per cent rates each accounted for 24 per cent of all the mortgages placed. The modal rate was 5½ per cent. Forty-four per cent of the recorded mortgages specified this rate. This is the only year studied during which the modal rate accounted for less than 65 per cent of all loans placed on record. For the periods studied the year 1925 registered the lowest prevailing rate charged on first mortgages.

TABLE 22.—Frequency distribution of the interest rate of first mortgages RECORDED during various periods*, 1910 to 1930

Per'tage Rate of Interest	1910		1915		1920		1925		1930	
	No. of Mtgs	Per cent of Mtgs	No. of Mtgs	Per cent of Mtgs	No. of Mtgs	Per cent of Mtgs	No. of Mtgs	Per cent of Mtgs	No. of Mtgs	Per cent of Mtgs
5	4	6.7	2	4.4	5	6.7	20	69.0	6	24.0
5¼	2	3.3	0		0		1	3.4	0	
5½	2	3.3	4	8.9	6	8.0	2	6.9	11	44.0
6	47	78.4	36	80.1	49	65.3	5	17.3	6	24.0
6½	0		2	4.4	2	2.7	0		2	8.0
7	2	3.3	0		6	8.0	0		0	
8	3	5.0	1	2.2	3	4.0	1	3.4	0	
10	0		0		4	5.3	0		0	

* The periods mentioned in the title of this table refer to periods of 24 months each, including 6 months before and 6 months after the year specified at the top of the columns, except that for 1930 the period covers only the 18 months prior to December 31, 1930.

Current Rate on Second Mortgages.—Eight per cent seems to have been the customary rate on current second-mortgage loans during the periods studied. Table 23 shows a larger number of second mortgages placed at the 6 per cent rate, but most of these were commission mortgages and consequently that rate does not indicate the cost of second-mortgage funds. The same would apply to the usually low rate charged on second mortgages given in connection with the sale and purchase of land. In the latter case it is the sale price and not the interest rate that is the more important.

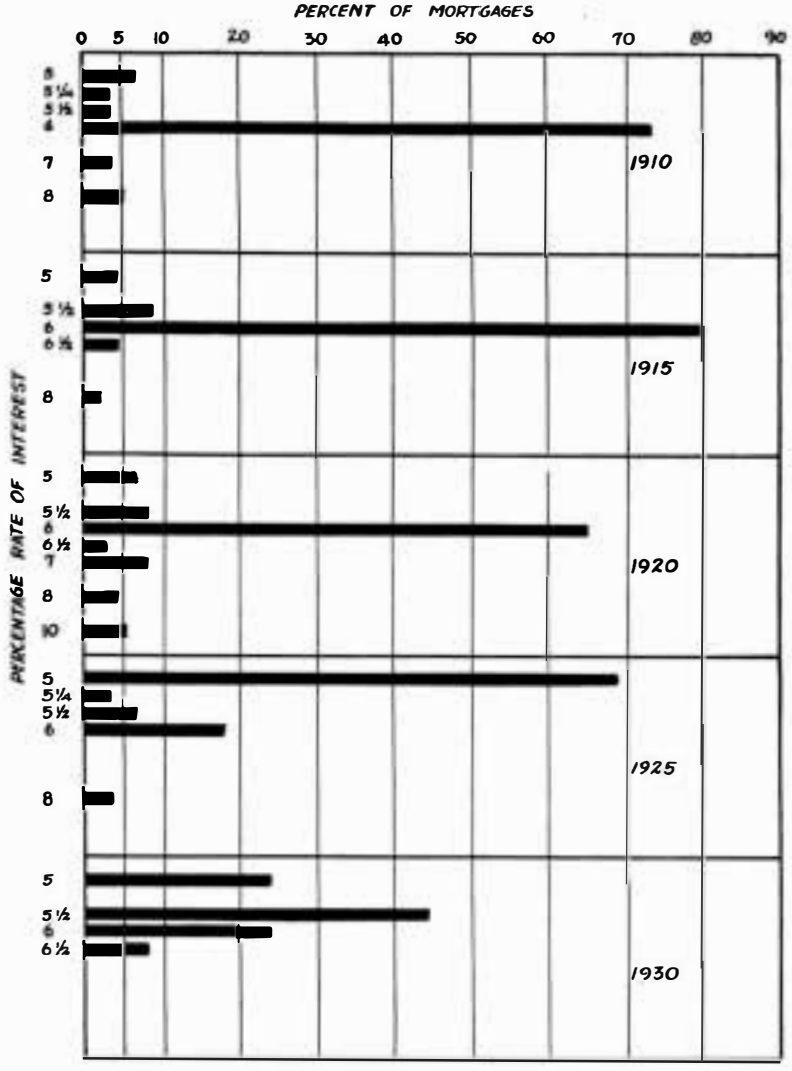

Figure 15.—Proportion of first mortgages drawing various rates of interest at different periods,[1] 1910-1930. (Based on Table 22.)

1. The mortgages are such as were recorded during each year indicated plus six months before and six months after, but for 1930 the period covers only the 18 months ending December 31, 1930.

TABLE 23.—Frequency distribution of the interest rate on second mortgages RECORDED during various periods*, 1910 to 1930

Per'tage Rate of Interest	1910		1915		1920		1925		1930	
	No. of Mtgs	Per cent of Mtgs	No. of Mtgs	Per cent of Mtgs	No. of Mtgs	Per cent of Mtgs	No. of Mtgs	Per cent of Mtgs	No. of Mtgs	Per cent of Mtgs
5	0		0		0		2	18.1	0	
6	10	43.4	11	47.8	12	42.8	4	36.4	0	
6½	1	4.4	0		0		0		0	
7	1	4.4	1	4.4	3	10.7	1	9.1	0	
7½	0		1	4.4	0		0		0	
8	9	39.1	3	13.0	8	28.6	4	36.4	1	
9	0		0		1	3.6	0		0	
10	2	8.7	7	30.4	4	14.3	0		0	

* The periods mentioned in the title of this table refer to periods of 24 months each, including 6 months before and 6 months after the years specified at the top of the columns, but only 18 months prior to December 31, 1930.

Length of Term

Average Term of First-Mortgage Loans.—Most of the first-mortgage loans on record and in force for the years studied were made for a term of five years. As previously mentioned the average is not always a satisfactory measure or indication because it may include some extreme items. In the case of first-mortgage loans very few were for a shorter term than five years, but a number of mortgages specified a longer term. This explains why the average given in Table 24 is more than 5. The 30-year Rural Credit loans and the longer term Federal Land Bank loans were excluded in the computation of the average. Among the remaining loans, however, chiefly among the insurance company loans, there were some 10-year loans and a few loans with a term of 20 years or more. The inclusion of these long term loans, on record in 1920 and after, resulted in an average length of term of considerably more than five years for first mortgages, as indicated in Table 24.

Average Term of Second-Mortgage Loans.—The same table gives the average length of term of all second mortgages on record as being in force for the years specified. Here there were fewer extreme cases to distort the average, which was 4.7 years in 1920 and was less than four years in length during the other years studied.

TABLE 24.—Length of term of first- and second-mortgage loans as averages of farm loans in force, every fifth year, 1910 to 1930

Year	First Mortgages		Second Mortgages	
	Lenth of Term in Years	Number of Observations	Lenth of Term in Years	Number of Observations
1910	5.7	130	3.6	26
1915	5.7	157	3.4	39
1920	8.5	148	4.7	46
1925	9.5	149	3.6	46
1930	9.7	147	3.6	24

Distribution of Term of Current First Mortgages.—A better indicator or measure of the length of term of first-mortgage loans is given in Table 25 and in Figure 16. Here we are dealing with current loans for for each year, not with all loans in force. The years specified refer to periods of 24 months each extending from 6 months before to 6 months after each specified year, except that for the last period the time covers only the 18 months prior to December 31, 1930. It semed necesary to take a longer period than 12 months in order to have a sufficiently large number of mortgages on which to base the results. A glance at Figure 16 shows that for each of the five periods more mortgages were written at the five-year term than for any other length of time. In 1910, 66 per-cent of the current mortgages specified the five-year term. Five years was also the modal term in 1915, when 79.7 percent of the mortgages placed on record specified that term. The distribution of the first mort-gages between the various lengths of term showed a greater scatter in in 1920 than in any of the other periods. For that year only 35.8 per cent of the then current loans were for five years. Other common terms were 10, 20, and 30 years. In 1920 more than 20 per cent were for ten-year terms, and 12.8 per cent were for 20 years. The greatest concentration is found among the loans recorded in the 1925 period. In that year 90.3 per cent of the new loans were placed for a term of five years. During 1930, 62.2 per cent of the loans were for five years, and 20.7 per cent for a term of only three years.

TABLE 25.—Frequency distribution of the term of first mortgages RECORDED during various periods*, 1910 to 1930†

Length of Term in Years	1910		1915		1920		1925		1930	
	Number of Mortgages	Per cent of Mortgages	Number of Mortgages	Per cent of Mortgages	Number of Mortgages	Per cent of Mortgages	Number of Mortgages	Per cent of Mortgages	Number of Mortgages	Per cent of Mortgages
1 year or less	1	1.8	0		8	10.2	2	6.5	0	
2 to 4 inclusive	10	17.9	1	2.0	3	3.9	1	3.2	7	24.1
5	37	66.0	39	79.7	28	35.8	28	90.3	18	62.2
6 to 9 inclusive	3	5.4	3	6.1	2	2.6	0		0	
10	4	7.1	3	6.1	16	20.5	0		1	3.4
11 and 13	1	1.8	2	4.1	2	2.6	0		0	
20 and 21‡	0		1	2.0	11	14.1	0		0	
30	0		0		7	9.0	0		1	3.4
35 and 36	0		0		1	1.3	0		2	6.9

* The periods mentioned in the title of this table refer to periods of 24 months each, including 6 months before and 6 months after the years specified at the top of the columns, except that for the year 1930 the period covers only the 18 months prior to December 31, 1930.

† One loan was due "in installments." Sixteen loans were due "according to note."

‡ Only one loan (in 1920) had a term of 21 years.

Short Term Loan Not Desirable for Borrower.—Apparently the better the economic position of the farmer the easier the credit and the longer the term that will be offered him, and vice versa. Long term amortization

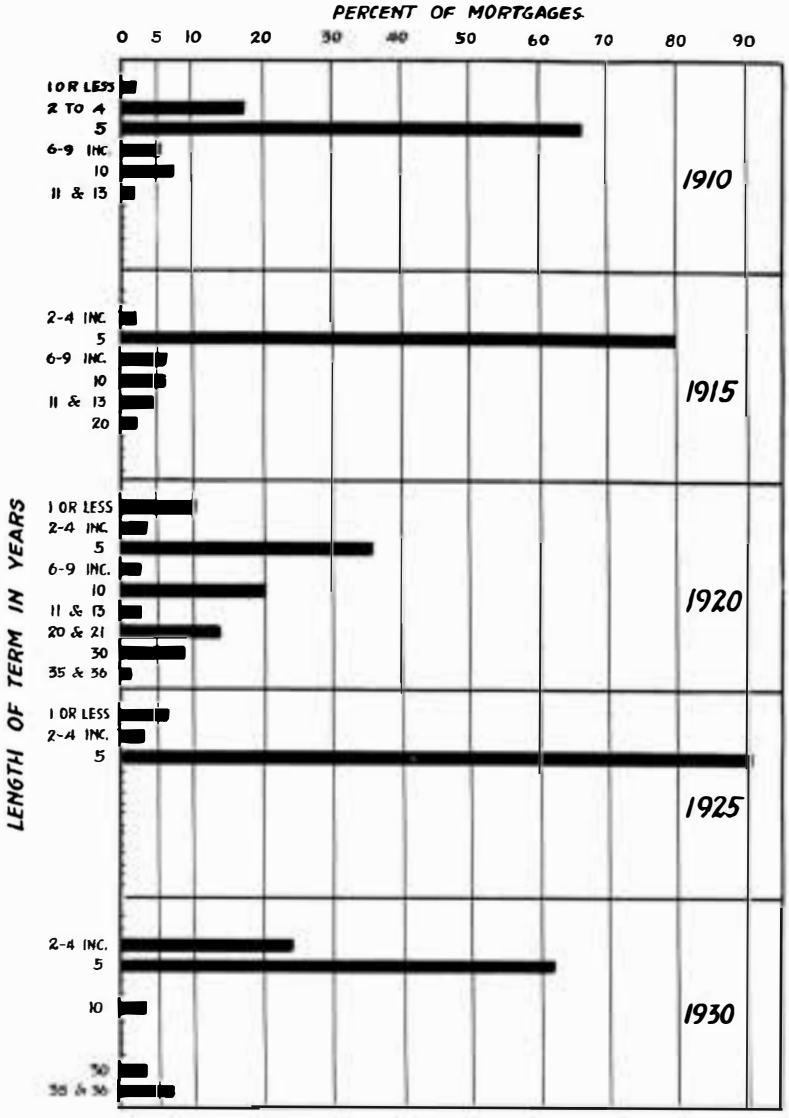

Figure 16.—Proportion of first mortgages falling in various term groups during different periods, [1] from 1910-1930. (Based on Table 25.)

1. The periods mentioned in the title of this figure refer to periods of 24 months each, including 6 months before and 6 months after the specified year, except that for 1930 the period covers only the 18 months prior to December 31.

loans with reasonable pre-payment privileges would seem to be the most desirable for the farmer borrower. He can then arrange to have his loan placed at a time when the interest rate is low, and he does not have to worry about inability to renew the mortgage at frequent intervals when the long term loan market may be unfavorable. On the other hand, it is evident that to the lender, a short term is most desirable. This gives him more frequent opportunity to demand payment of the loan, or reduction, or more security when the loan falls due. This might be especially desirable during periods of falling prices and declining land values.

Term of Current Second Mortgages.—The distribution of the terms of current second mortgages is shown in Table 26. For every year studied about one-third of the second mortgages were for a term of one year. In 1910 most of the second mortgages were made for a term of three years or less. In 1915 the 5-year and the 1-year terms were most commonly used. In 1920 most of the second mortgages were made for terms of less than five years, although 5-years was the modal term. Few mortgages were placed in the 1925 period and most of them were for three years or less. No second mortgages were recorded in the 1930 period. Naturally since second mortgage financing is more risky than first-mortgage financing it is to be expected that the term will be shorter. For the same reason the amount loaned will be smaller and the interest rate higher. The holder of the second mortgage not only runs the risk of not receiving payment of interest and principal, he also faces the prospect that the holder of the first mortgage may foreclose and destroy his security entirely.

TABLE 26.—Frequency distribution of the term of second mortgages RECORDED during various periods*, 1910 to 1930

Length of Term in Years	1910		1915		1920		1925		1930	
	Number of Mortgages	Per cent of Mortgages	Number of Mortgages	Per cent of Mortgages	Number of Mortgages	Per cent of Mortgages	Number of Mortgages	Per cent of Mortgages	Number of Mortgages	Per cent of Mortgages
1 year or less	8	33.3	8	34.8	8	32.0	3	33.4	none	
2	4	16.7	0		3	12.0	2	22.2		
3	5	20.8	2	8.7	4	16.0	2	22.2		
4	1	4.2	1	4.3	2	8.0	0			
5	3	12.4	10	43.6	5	20.0	2	22.2		
6 to 13 inclusive	3	12.6	2	8.6	3	12.0	0			

* The periods mentioned in the title of this table refer to periods of 24 months each, including 6 months before and 6 months after the years specified at the top of the columns, except that for the year 1930 the period covers only the 18 months prior to December 31, 1930

Interest Rate and Term of Loans From Various Sources

First-Mortgage Rates and Terms.—In a comparison of the interest rate charged by the various lending agencies and the length of term for which they placed their loans, it was necessary to take account of all the loans on record and in force for each year studied in order to have a sufficient number of loans on which to base the comparison. Even with this method valid comparisons may be impossible because in some cases there were only one or two loans on record from some of the lending agencies. Furthermore, the loans compared may not have been placed under comparable conditions of the loan market, etc. This is thus a comparison based on all loans in force at given times rather than a comparison of current loans. Table 27 gives the result with respect to the average weighted interest rate and the unweighted term of first mortgages. In 1910 the loans from commercial banks drew the highest rate of interest, 6.2 per cent, and the South Dakota school fund loans had the lowest rate, 5.5 per cent. Loans from the latter source also specified the shortest term, 3.5 years. The same relative ranking is shown for 1915, with 6.3 and a 5.0 per cent interest rate respectively. The rate from the other agencies was 6 per cent. In 1920 the interest rate averaged lower from all sources. The school fund loans had the lowest interest rate for all the years, but in 1920 loans from the commercial banks drew a lower rate than did the loans from insurance companies and mortgage bankers. The school fund loans and the loans from commercial banks each had an average term of 4.7 years. The long average term for insurance companies in 1920 is due to the inclusion of some 10-year and 20-year loans. Aside from the school fund loans the interest rate varied by only one-half of one per cent or less for the different lending agencies during 1925 and 1930. The greater variation in length of term is due to the fact that some agencies used the customary five-year term while others used ten-year or

TABLE 27.—The average weighted interest* rate and the average unweighted length of term in years, of outstanding† first-mortgage loans from various sources, every fifth year, 1910 to 1930

Source of Funds	1910		1915		1920		1925		1930	
	Interest	Term	Interest	Term	Interest	Term	Interest	Term	Interest	Term
Insurance Companies	5.9	8.5	6.0	7.4	5.8	12.8	5.6	10.3	5.5	8.3
Savings Banks	6.0	5.0	6.0	5.7	5.5	6.7	5.4	6.7	5.5	4.0
Commercial Banks	6.2	5.6	6.3	5.0	5.7	4.7	6.0	4.6	6.0	4.7
Individuals	6.1	5.4	6.0	5.6	6.0	6.6	5.8	6.9	5.7	5.0
Federal Land Bank	‡	‡	‡	‡	5.5	?	6.0	34.5	5.7	35.2
S. D. School Fund	5.5	3.5	5.0	4.3	5.2	4.7	5.3	5.0	5.2	5.0
S. D. Rural Credit	‡	‡	‡	‡	5.6	30.0	5.7	30.0	5.7	30.0
Mortgage Bankers	6.0	10.0	6.0	5.1	5.9	5.0	‡	‡	6.5	3.0
Miscellaneous	6.0	5.0	6.0	5.0	6.0	9.0	5.9	15.1	6.0	14.2

* In addition to the interest cost, the borrower usually is required to pay a commission averaging about ½ of 1%, except in case of loans from the Federal Land Bank, South Dakota and some local loans.

† The mortgages considered here include all such as were outstanding, that is, in force during the years specified. Naturally most of these mortgages had been made and recorded prior to the years mentioned.

‡ No loans.

twenty-year terms and a few made amortization loans of 30 years or more. On account of the limited number of loans from many of the lending agencies, and on account of the possibility that other conditions surrounding the placing of the loans may have differed, it does not seem possible to draw any specific conclusions from a comparison of the interest rate and length of term offered by the several classes of lenders. It would seem, however, that the most desirable type of loan would be the long term amortization loan. With a reasonable rate of interest this should be the most economical loan because the commissions and other costs of frequent renewal would be eliminated. This type of loan should also promote reduction of the farm mortgage debt by means of a systematic and gradual reduction of the principal.

Second-Mortgage Rates and Terms.—Second-mortgage funds have come from fewer sources, as indicated in Table 28. If we omit consideration of all averages that are based on only four or fewer cases the question is reduced to a comparison of rates and terms of loans from commercial banks and from individuals, except for the year 1920 when there were seven loans on record from mortgage bankers. As in Table 27 the interest rates given in Table 28 are weighted according to the size of each loan so as to give the average rate of interest per dollar of second mortgage funds. Likewise the figures for the length of term are simple unweighted averages. There has been little difference in the average length of term of second-mortgage loans from banks and individuals. Loans from the banks, mostly local banks, have been on an average only about three years and three months in length, whereas loans from individuals have averaged three and one-half years in length. The interest rate has differed more. The average rate from the banks has been almost 8 per cent, whereas the average interest rate on loans from individuals has been about 6 per cent. Since the second mortgages taken by individuals include some that were taken in connection with the sale of land it is to be expected that the rate would be lower and the term longer than on second mortgage loans from commercial banks. The average length of term of such loans held by individuals would have been still longer but for the exclusion of two ten-year loans, one thirteen-year loan and one twenty-nine-year loan. There has been only a slight downward trend of the second-mortgage interest rate from the earlier to the later years.

TABLE 28.—The average weighted interest rate and the average unweighted length of term in years of outstanding* second-mortgage loans from various sources every fifth year, 1910 to 1930

Source of Funds	1910		1915		1920		1925		1930	
	Interest	Term	Interest	Term	Interest	Term	Interest	Term	Interest	Term
Commercial Banks	8.3	2.8	7.3	3.6	7.8	2.5	7.9	3.1	7.1	4.3
Individuals	6.5	3.8	6.5	3.1	6.2	4.1†	6.1	3.8	5.6	3.0
Mortgage Bankers	8.5	4.8	8.6	4.0	6.4	5.0	5.0	3.0	‡	‡
Miscellaneous	‡	‡	9.1	2.5	6.2	4.1	6.0	4.0	7.6	2.8

* The mortgages considered here include all such as were outstanding, that is, in force during the years specified.

† Two 10-year loans, one 13-year and one 29-year loan have been omitted in computing this average.

‡ No loans.

Amounts Loaned per Acre by Different Agencies

Table 29 shows that the most conservative loans have been those from the school fund. The second smallest loans per acre came from the commercial banks. There were too few loans from mortgage bankers to make the average reliable. This also applies to the loans from savings banks in 1910 and in 1930, as well as to the Federal Land Banks loans in 1920. Of the specified lending agencies, individuals and the South Dakota Rural Credit board had placed the largest loans per acre.

TABLE 29.—Average amount loaned per acre on first mortgages by various agencies, as indicated by outstanding* mortgages for the years specified, 1910 to 1930

Source of Funds	1910 Loans Per Acre	1915 Loans Per Acre	1920 Loans Per Acre	1925 Loans Per Acre	1930 Loans Per Acre
Insurance Companies	$13.47	$15.18	$25.76	$28.99	$26.97
Savings Banks	†	15.76	24.55	25.63	†
Commercial Banks	10.76	14.61	18.34	20.28	17.32
Individuals	16.08	16.87	31.18	32.89	28.05
Federal Lank Bank	0	0	†	27.50	24.77
South Dakota Rural Credit	0	0	31.32	30.38	27.35
South Dakota School Fund	5.52	7.34	13.80	15.44	13.30
Mortgage Bankers	‡	18.07	18.75	0	‡
Miscellaneous	14.81	12.50	38.14	33.52	28.29

* The mortgages included here are all such as were outstanding, that is, in force during the years specified. Naturally many of these had been recorded earlier than the year listed.

† Only two loans.

‡ Only one loan.

Land Values and Ratio of Debt to Value

Land Values and How Determined.—Normally it is expected that land values will be based on the earning power of the land. The customary rule is to capitalize the net income at the current rate of interest. Thus if the net return from land is $6.00 per acre per year and the annual rate of interest is 6 per cent the land is said to be worth $100 per acre on the basis of the present earning power. Since it is usually more difficult to determine the net return per acre than to find out what farms in the community are selling for sale prices are usually taken as a measure of land values. This was the procedure followed in the preparation of Table 30. Three periods were studied and three years were included in each period. Thus for the 1910 period all sales during 1908 to 1910 inclusive were tabulated. For 1920 the years of 1918 to 1920 inclusive were taken, and for 1930 the three years ending with December 31, 1930 were used. Dividing the sum of the sale prices by the total acreage sold gave a valuation of $35.03 per acre in 1910. The 1920 value similarly arrived at was $57.06 per acre. In the case of many deeds the sale price was hidden behind the stock phrase "one dollar and other valuable considerations". During the 1930 period only two deeds placed on record specified the sale price. One hundred sixty acres were sold at $17.17 per acre, and 480 acres changed ownership at $43.75 per acre. The average price of $37.11 is clearly not a reliable indication of 1930 land values.

The United States census reports an average value of $46.07 per acre for the whole county in 1910, $102.73 in 1920 and $56.04 in 1930. The census estimates of land values by townships is found only in the report for 1930. In that year the average value per acre in the three townships under consideration was $52.82. (Mount Pleasant $45.93, Garfield $66.99 and Raymond $45.03.)

TABLE 30.—Land values per acre as indicated by sales* and by the United States census reports, 1910, 1920 and 1930

Year	Sale Price Per Acre in Three Townships	Census Value Per Acre for County
1910	$35.03	$ 46.07†
1920	57.06	102.72†
1930	§	56.04‡

* Sale values for 1910 are based on sales during 1908-1910 inclusive; 1920 sale values are based on sales during 1918-1920 inclusive, etc.
† Fourteenth census of the United States, 1920, Volume VI, Part I, page 655.
‡ Fifteenth census of the United States, 1930, Agriculture Volume I, pages 563-564.
§ Only two sales recorded.

Ratio of Debt to Value.—If the true value of the land, based on its earning power could be determined then a comparison of the debt per acre with the value per acre would show both the extent of the debt burden on the borrower and the margin of safety for the lender. However, the values per acre, quoted in Table 30 may not even approximate the true values. Nevertheless, using these figures as they are and comparing them with the debts per acre given in Table 8 we arrive at the ratios of debt to values as given in Table 31. Accordingly the 1910 debt per acre, amounted to 46.4 per cent of the value as determined by recorded sales prices. On the same basis of computation the ratio of debt to sale price was 56.4 per cent in 1920. Since the average based on only two sales would be far from reliable the ratio between debt and sale price in 1930 has not been computed. The ratios between debt per acre and average land values for the whole county as reported by the United States census are given in Table 31 as 23.8 in 1910, 19.5 in 1920, and 35.97 in 1930. While this is not a wholly valid comparison it indicates, as one would expect, a higher ratio of debt to value in 1930 than either in 1920 or in 1910, because land values have undoubtedly declined more than the mortgage debt has been reduced in the ten years ending with 1930.

TABLE 31.—The ratio of debt to value of land and buildings per acre of mortgaged land, 1910, 1920 and 1930

Year	Ratio of Debt to Sale Price* in Three Townships	Ratio† of Debt to Census Value for County
1910	46.4	23.8‡
1920	56.4	19.5§
1930	---#	35.97£

* Sale prices are from Table 30, and debts per acre are from Table 8, this circular.
† According to mortgage debt reports from farms operated by owners on owned land only.
‡ Thirteenth census, United States, 1910, Volume VII, page 546.
§ Fourteenth census, United States, 1920, Volume VI, Part I, page 675.
# Only two sales recorded.
£ Fifteenth census, United States, 1930, Agriculture, Volume II, Part I, page 1,191.

Land Purchases and Indebtedness

Significance of the Problem.—An attempt has been made in Tables 32 and 33 to show the relationship betwen the purchase of land and indebtedness. One question relates to whether farm land which has been purchased recently is more or less likely to be incumbered than is other land which has not changed ownership during the same period of time. Another line of inquiry refers to the comparative debt per acre on mortgaged lands in the two classes of sold and unsold lands. If the purchase of land has some bearing on the extent and amount of indebtedness it becomes necessary to take this matter into account when statistics of farm indebtedness are used to support conclusions with respect to the trend of farm ownership, indebtedness and tenancy. If the volume of land sales have been greater at one period than at another this fact may have to be considered before comparing the relative extent of mortgage indebtedness during the two periods. If mortgaging of the land is a normal accompaniment of a farmer's change of status from tenant to owner such increase in indebtedness may be only temporary, and both individually and socially may be beneficial. Insofar as possible attempts should be made to learn the reasons for changes in farm indebtedness in order that the conclusions arrived at and the policies adopted may be right.

Proportion of Land Sold.—Table 32 shows that the greatest activity in land sales occurring in any five-year period from 1911 to 1930 inclusive came in the period of rising prices and war inflation from 1916 to 1920 inclusive. During this period 33.1 per cent of all the land in the three townships changed ownership at least once. The lowest ebb in land transfers came in the period from 1926 to 1930 inclusive, with only 7.6 per cent of all land changing ownership. The same table gives the figures for land sales during various periods of the twenty years under consideration. It will be noticed that the percentage for the twenty-year period is not the same as the sum of the short component periods. The reason for this is that certain tracts of land were sold during more than one of the shorter periods. Comparison with similar data from Haakon and Hyde counties indicate that there was greater activity in land transfers in the latter counties. Lands transferred without full considerations as between relatives and in foreclosures, were counted as not sold.

Relatively More of the Sold Land Covered by Mortgage.—The significant comparison from Table 32 is the relative proportion of the sold and the unsold lands under mortgage. By five-year periods it is seen that from 84.1 per cent to 92.4 per cent of the acreage of the sold land was incumbered at the end of each period. In all cases the classification is based on the sale or absence of sale during only the specified period. In contrast, of the lands that had not been sold during any of these five-year periods, only from 35.5 per cent to 49.8 percent were mortgaged. The same general relationship holds for the longer periods. About twice as high a percentage of the sold lands were mortgaged as was the case with the lands that had not changed ownership during the period considered. This is clearly indicated in Figure 17. Somewhat the same tendency was noted in Hyde and Haakon counties. This would seem to indicate, as might be expected, that the sale of a piece of land will increase the

probability that such land will be mortgaged. It will be noted with respect to lands sold that generally the longer the period considered the smaller the percentage of land under mortgage. This may be explained by the fact that longer periods will include lands which had not changed owners for several years, and that some of the purchase-incurred mortgages had been paid off. In the not sold class the higher proportion of mortgaged land following 1920 is, no doubt, due to the greater financial difficulty in which all farmers found themselves during the post-war deflation years.

TABLE 32.—Comparison between lands which have not been sold and lands which have been sold during given periods as to the percentage of each class of land under mortgage, 1911 to 1930 inclusive

Periods Covered	Length of Period in Years	Lands Not Sold		Lands Sold	
		Per cent of All Land	Percentage Mortgaged	Per cent of All Land	Percentage Mortgaged
1911-1915	5	83.7	37.6	16.3	92.4
1916-1920	5	66.9	35.5	33.1	90.0
1921-1925	5	85.6	46.0	14.4	88.8
1926-1930	5	92.4	49.8	7.6	84.1
1911-1920	10	59.0	30.9	41.0	86.2
1921-1930	10	78.7	44.9	21.3	80.1
1911-1925	15	54.8	31.5	45.2	77.2
1911-1930	20	51.5	37.3	48.5	68.4

Influence of Purchase on Debt Per Acre.—A comparison between lands sold and lands not sold as to the debt per acre of the mortgaged land in each class is presented in Table 33. At the end of the five years terminating with 1915 the incumbered unsold land was mortgaged for $15.74 per acre. At the same time the sold and morgaged land carried a debt of $22.85 per acre. This spread was still greater at the end of the 1916-1920 period, when the indebtedness stood at $22.34 and $40.03 respectively. A change in the relative position of the two classes seems to have been brought about by the deflation begun in 1921. As a result the incumbered unsold land was mortgaged for almost as much per acre in 1925 as was the sold and mortgaged land, the amounts being $33.65 and

TABLE 33.—Comparison between incumbered lands which have not been sold and incumbered lands which have been sold during given periods as to the debt per acre in each class, 1911 to 1930 inclusive

Periods Covered	Length of Period in Years	Lands Not Sold		Lands Sold	
		Per Cent of All Land	Debt Per Acre of Mortgaged Land	Per Cent of All Land	Debt Per Acre of Mortgaged Land
1911-1915	5	83.7	$15.74	16.3	$22.85
1916-1920	5	66.9	22.34	33.1	40.03
1921-1925	5	85.6	33.65	14.4	34.61
1926-1930	5	92.4	27.86	7.6	24.08
1911-1920	10	59.0	21.63	41.0	37.62
1921-1930	10	78.7	27.58	21.3	27.02
1911-1925	15	54.8	30.59	45.2	35.52
1911-1930	20	51.5	26.86	48.5	27.71

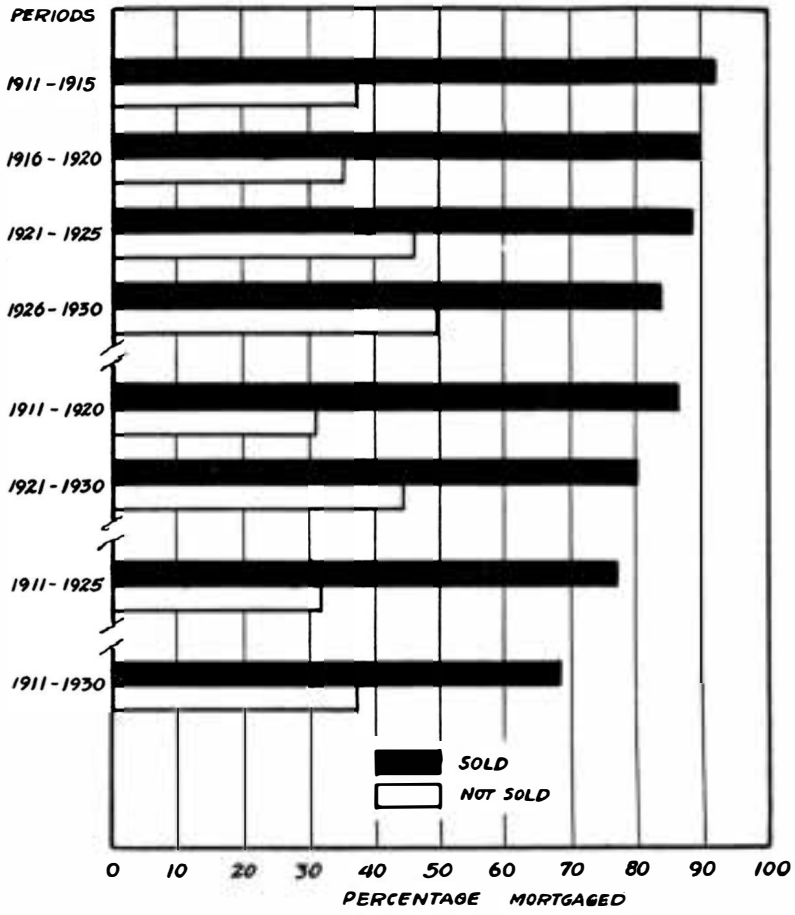

Figure 17.—Comparison of lands that have been sold and lands not sold during given periods as to percentage of such land covered by mortgage at the end of each period. Three townships, Clark county, South Dakota. (Based on Table 32.)

$34.61 respectively. By the end of the succeeding five years the indebtedness positions of the two classes were entirely reversed. At the end of 1930 the mortgaged lands not sold during the previous five years were incumbered to the amount of $27.86 per acre while the mortgaged land which was sold during the period was pledged for a debt of only $24.08 per acre. The data in Table 32 and the indebtedness figures in Table 33 for the five-year periods ending in 1915 and 1920 indicate that indebted-

ness was more prevalent and was higher per acre on the sold land. Is a contrary conclusion to be drawn from the per-acre debt figures for the 1921-1925 period and the 1926-1930 period? Similar results have been found in other counties and in larger studies elsewhere. The explanation seems to be about as follows: Since the classification by five-year periods does not take into account whether the land was or was not sold during the years prior to the period under consideration, any considerable change in the extent of land sales from one period to the next will influence the results. Thus, from 1916 to 1920 inclusive, 33.1 per cent of all the land was sold, and 90 per cent of this sold land was mortgaged. A smaller proportion of the land was sold during the two succeeding five-year periods, and as a consequence some of the land which was sold and mortgaged for a large amount per acre during the 1916-1920 period would be classified as not sold during the years following and would thus tend to raise the debt per acre of the incumbered land which was not sold. That this is true is shown by the following analysis. The lands not sold but mortgaged at the end of the 1926-1930 period carried a debt of $27.86 per acre, while the sold and mortgaged land was incumbered for only $24.08 per acre. By taking this mortgaged land which had not been sold during the 1926-1930 period and classifying it, as to whether it had been sold or not sold during the 1916-1920 land "boom" period, it was found that that part of it which had been sold during the 1916-1920 period carried a debt of $29.69 per acre, whereas the land in the other sub-division, which had not been sold during the 1916-1920 period was mortgaged for only $26.37 per acre. A similar result was shown for the 1921-1930 period as to land not sold during that period but incumbered in 1930. Of this land that part which had been sold during 1916-1920 was incumbered for $30.97 at the end of 1930, while that part which had not been sold during the 1916-1920 period was mortgaged for only $25.97 per acre in 1930. This indicates that lands sold in one period may for several years retain a higher debt per acre than the lands which have not changed ownership. It thus accounts for the higher debt per acre on the not sold but mortgaged land than on the sold and mortgaged land at the end of the 1926-1930 and the 1921-1930 periods. Other reasons are that the lands which changed ownership after 1920 were sold for much lower prices. The farms that were sold thus had a low value placed on them and became acceptable as security for only small loans. With declining land prices the lenders became frightened and the only loans that could be had were those that were conservative in relation to the lower land values. This tended to reduce the debt per acre of the lands sold and mortgaged after 1920. Even the owners who had not recently acquired title to their farms were forced to borrow because of the general financial difficulty in which most farmers found themselves. Farmers whose lands had not been sold during the 1916-1920 period and who later increased their debt per acre because of low income and high expenses were able to do so because the old debt per acre was so small that the land possessed security value for larger loans. A combination of the above causes seems to account for the higher debt per acre on the lands that were not sold during the 1926-1930 period but which were mortgaged at the end of 1930.

On the whole the data in Tables 32 and 33 indicate that the sale of land increases the probability of such land being mortgaged and, other things being equal, that the more recent the sale the higher the debt per acre will tend to be. In other words, the more remote the sale the more likely that the purchase-incurred mortgage has been either reduced or paid. It appears that the indebtedness in this area would have been smaller if less land had been purchased at high prices during the period of inflation ending with 1920.

Conclusions

The Problem of Excessive Debts.—Some farmers in this area are in a difficult position because of burdensome debts. If this excessive debt was contracted during the period of war inflation as a result of either a purchase of land or an outright loan it might be desirable or necessary to effect a compromise settlement. An individual mortgagee dealing only with his own funds might be willing to write off enough of the debt to make a fair adjustment between the present and the past value of the land, or between the present and the past purchasing power of money. If the mortgagee is an institution handling other peoples' money, such as a bank or an insurance company, the proposed adjustment becomes much more complicated, if not impossible. Even if past errors can not be rectified future ones may be guarded against.

Long Term Amortization Loans Preferable.—Since the bulk of farm mortgage funds now comes from large financial institutions whose financial relationship between receipt and disbursement of funds is such as to enable them to make long term contracts, farmers should take advantage of this and as far as possible insist on long term loans. Such long term loans should be on the amortization basis. Evidence points to the conclusion that a considerable percentage of farmers, like many other business concerns, will continue to operate on borrowed capital. Very few who begin farming and purchase a farm can do so without dependence on credit. Because of the fact that the price of land has tended to be high in relation to its net income it usually takes many years to pay off a large farm mortgage. This conclusion seems to be warranted by the statistics of mortgage indebtedness. The total amount of loans increased 167 per cent from 1910 to 1920 and from 1920 to 1930 the net decrease was less than the amount of foreclosures. If it takes a life time to pay for a farm and to get out of debt it is obvious that the traditional five-year loan is not adapted to the needs of present day farming. The short-term loan is both expensive and dangerous. Frequent renewals and replacements of loans involve expenses for abstracting and recording, and the customary commissions increase the total interest rate materially. The danger arises from the fact that the loan may become due at a time of financial stringency in the farm loan market. Inability to secure a new loan may result in delinquency, foreclosure and loss of the farm. If a loan is procured it may be inadequate in amount and the interest rate may be high. The advantages of the long term amortization loans are that the farmer will need to borrow only once. Such loans usually permit

payment in full at the end of three years or more. This will make it possible to get out of debt as soon as one's income permits. It also enables the borrower to refinance his long term loan at a time when interest rates are low. The method of repaying the amortization loan facilitates the gradual reduction of the farm debt by means of regularly recurring small payments on the principal. This is an important feature because few people have the ability gradually to accumulate a sufficient amount of money to pay off a large farm loan in one lump sum. Hence, most farm loans are renewed, or even increased, when due. Thus the borrower has little prospect of getting out of debt unless he has some systematic way of gradually reducing the principal, such as is provided by the long term amortization loan.

Larger Amortization Payments During Good Years.—Some improvements can also be made in the amortization loan contract. Instead of having uniformly equal payments every six or twelve months provision should be made for larger payments during years of increased farm income. This would then permit smaller payments to be made when the farm income is low. The difficult problem here is how to assure that prepayments be made out of the larger income. Either some financial inducements might be offered the borrower or else the lender might have to take the initiative in increasing the collections during prosperous years.

Arrange Payments to Coincide with Time of Receipt of Income.—While the delinquency data indicate something more serious than mere maladjustment between the date of receiving the farm income and the date of paying the loan, this matter is nevertheless worth considering. By having this in mind at the time the loan is being negotiated the date or dates of the annual or semi-annual payments can be made to coincide with the period or periods when the farm income is expected to be available.

Make No Large Long-Term Loans During Inflation Period.—One conclusion that follows inevitably from a consideration of the data in this and in other similar studies is that borrowers and lenders need to guard against making large capital loans during periods of inflation. During periods of high prices the dollar has a small purchasing power over land, equipment and farm products. Hence funds borrowed as such a time will command relatively small quantities of land or equipment. This will cause no great inconvenience in the case of a short term or seasonal production loan which can be repaid from the proceeds of products sold at high prices. In the nature of the case a long term capital loan, however, will not be repaid from the income of the current year. Hence, if it is a customary loan maturing in a few years the due date may come at a time of depression and low prices, making payments almost impossible. A grave injustice is inflicted on such a borrower in that since the contract specifies repayment in dollars and since the dollars have increased in purchasing power the debtor, in order to repay his loan, must dispose of a much larger physical quantity of farm products than the original loan would have commanded. This is a legally permissible, and generally unpremeditated, form of robbing the debtor for the benefit of the

creditor. On the other hand, the borrower who goes into debt at a time of deflation and repays the loan during a later inflation is benefiting at the expense of the creditor. Unfortunately the recurring periods of high and low prices characteristic of the business cycle do not compensate each man's loss at one time with a gain at a later period. Even a lender may lose on a falling market if the value of his security, such as land, declines below the amount of his loan. The extensive foreclosures in this area have, undoubtedly, resulted in losses to both borrowers and lenders.

Guard Against Harmful Effects of Price Fluctuations.—How can the borrower protect himself from loss due to the price cycle? He should study all the available information and forecasts, but unfortunately the future course of prices is not accurately predictable. Hence, one can only recommend a course of conservative borrowing when the price level is higher than the normal trend. Besides a conservative policy of borrowing it is well for the farmer to mortgage no more of his land than is necessary to give the loan adequate security. At times of high prices debts should be paid rather than incurred. This applies especially to a long term investment like the purchase of land. In justice to its citizens the state should do all in its power to bring about a reduction of the harmful fluctuations in economic activities and in the price level.

Need Greater Stability in Land Values.—Since the size of the mortgage loan as well as the price paid for farm land will tend to vary with the estimated value of such land, it is evident that land values should be based on something more stable than the income for one or two years. This is especially true in view of the fact that it will require the net surplus of several years to pay for a farm. Farm land should be valued on the basis of a conservative estimate of the net returns for a period of possibly twenty years into the future. This would tend to reduce both the purchase price and the size of loan required. This more conservative valuation should then make the loans safer and should consequently tend to reduce the interest cost to farmer borrowers. Because on the investment market, other things being equal, funds will be most plentiful and the rate lowest where the security is greatest. If the farmers could adopt a policy of not bidding up the price of land during years of good farm incomes the added income could be used to pay debts and to raise the standard of living. The maintenance of a higher rural standard of living would be of permanent value not only to agriculture but to the entire nation.

Summary

The data on which this circular is based were procured from the records in the office of the county register of deeds. It has been tabulated as of every fifth year from 1910 to 1930.

The total farm mortgage indebtedness has increased from $446,412 in 1910 to a peak of $1,222,696 in 1925; the most rapid increase having taken place between 1915 and 1920. In 1930 the indebtedness was $991,909. The index numbers of change in volume of indebtedness are: 100 in 1910, 130 in 1915, 267 in 1920, 274 in 1925 and 222 in 1930.

The mortgaged acreage rose from 27,437 in 1910 to a peak of 37,021 in 1920, and was 36,200 acres in 1930. The indexes of change in acreage, beginning with 100 in 1910, are: 117 in 1915, 135 in 1920 and 132 both in 1925 and in 1930.

The debt per acre of mortgaged land which was $16.27 in 1910, reached a peak of $33.89 in 1925, and stood at $27.40 in 1930. The index numbers of debt per acre are: 100 in 1910, 111 in 1915, 198 in 1920, 208 in 1925 and 168 in 1930.

Foreclosures during 1911-1915 and 1916-1920 inclusive amounted to less than one per cent of the loans in force at the beginning of each period. Unredeemed foreclosures from 1921 to 1925 inclusive involved loans amounting to $130,403 or 10.9 per cent of the 1920 indebtedness. The 1926-1930 foreclosures totaled $142,057 or 11.6 per cent of the 1925 indebtedness.

The acreage involved in foreclosures up to 1920 was also small. But from 1921 to 1925 inclusive 2,987 acres were lost through foreclosures. This equals 8.1 per cent of the acreage under mortgage in 1920. During 1926-1930 inclusive the owners lost 4,920 acres through foreclosures, or 13.6 per cent of the 1925 acreage under mortgage.

Delinquencies in 1910 equaled 5.4 per cent of the total indebtedness. The percentage was 15 in 1915, 8.5 in 1920, 17.7 in 1925, and in 1930 28.2 per cent of the amount of all loans was delinquent.

The indebtedness and foreclosure figures may be exaggerated because of neglect on the part of borrowers and lenders to record all pertinent documents. Attempts have been made, however, to eliminate such possible inaccuracies.

A decided shift has taken place in the source of first-mortgage funds during the period under consideration. In 1910, 62.8 per cent of such funds had come from individuals and 13.3 per cent from insurance companies. Of first-mortgage loans on record in 1930 only 13.6 per cent of the funds came from individual lenders, while 54.0 per cent was accounted for by insurance companies. The Federal Land Bank held mortgages amounting to 13 per cent of the 1930 indebtedness.

As to second mortgage funds, the two almost equally important chief sources have been individuals and commercial banks.

The interest rate on current first-mortgage loans was predominantly 6 per cent in 1910, 1915 and in 1920. In 1925, 5 per cent was the most common rate. In 1930 almost one-half the loans specified 5½ per cent, and almost another 50 per cent of the loans were equally divided between the 5 per cent and the 6 per cent rates.

During all the years studied the prevailing length of term for first-mortgage loans was five years.

Classifying all land as to whether sold or not, it was found that of the lands which had been purchased during the years considered almost twice as high a percentage was mortgaged as was the case with the lands not sold. The indebtednes per acre was also found to be higher on the land which had changed ownership through purchase.